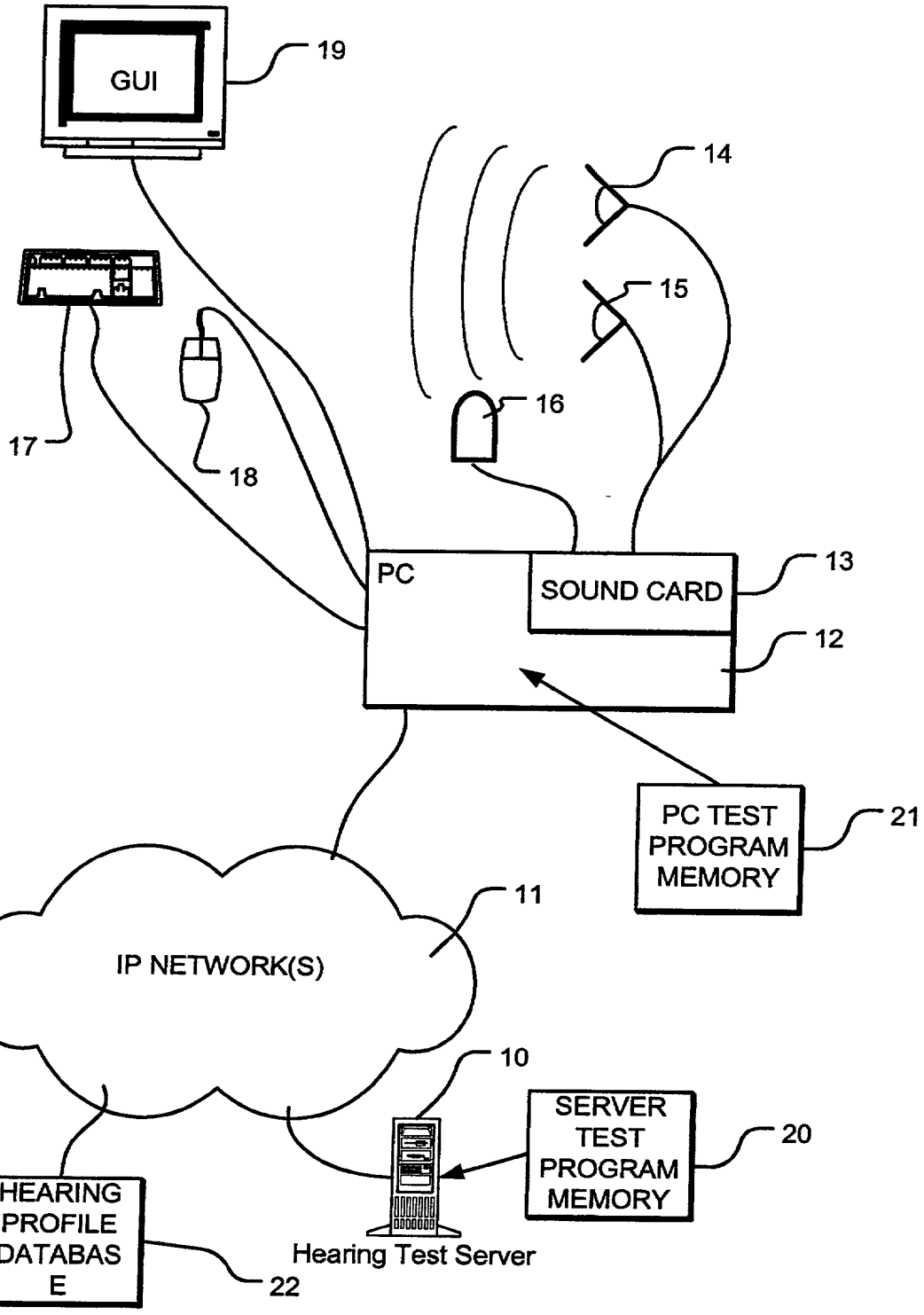


FIG. 1

Sonos, Inc. Exhibit 1013 Page 1 of 30

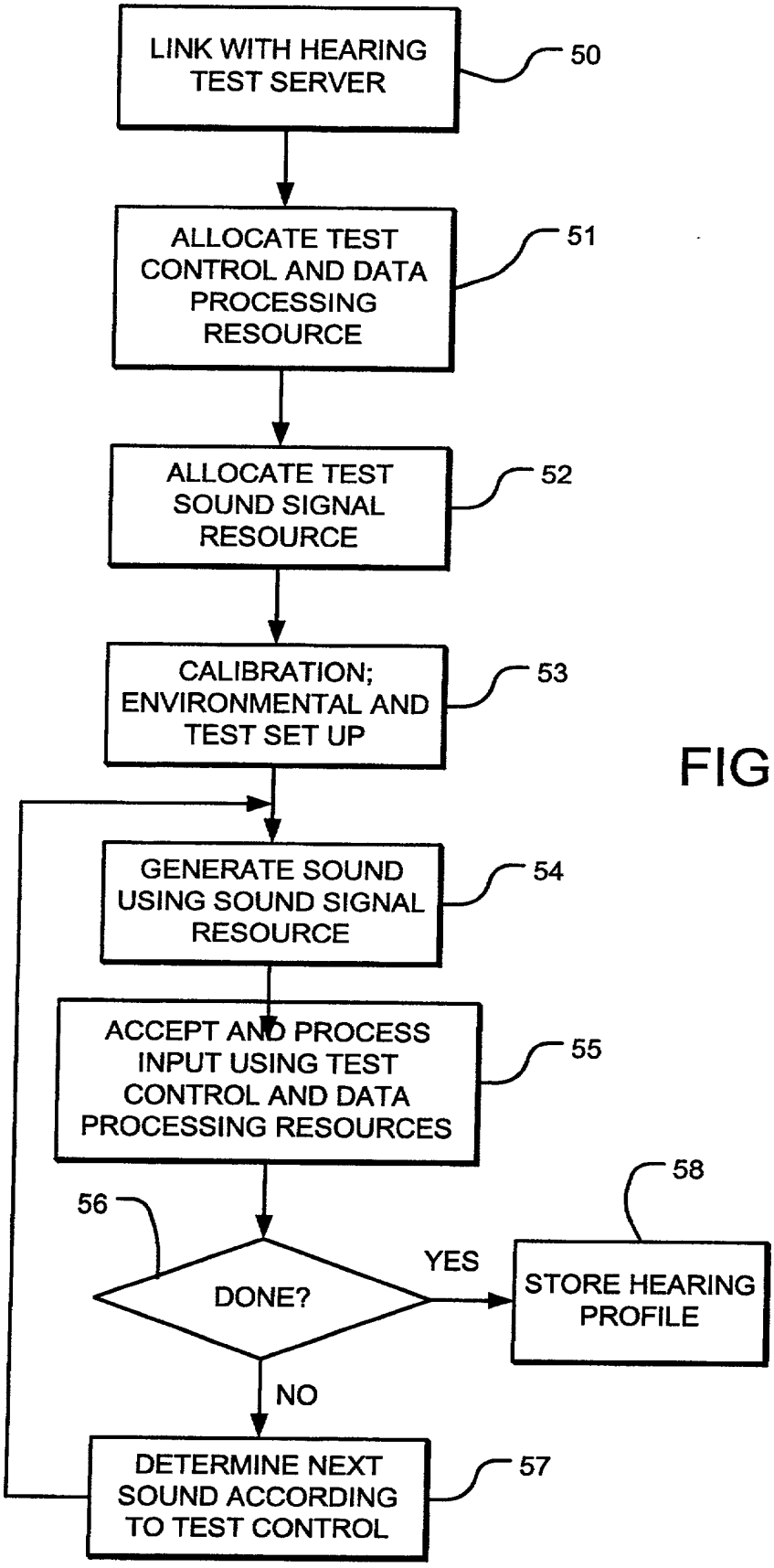


FIG. 2

0595681-1020121

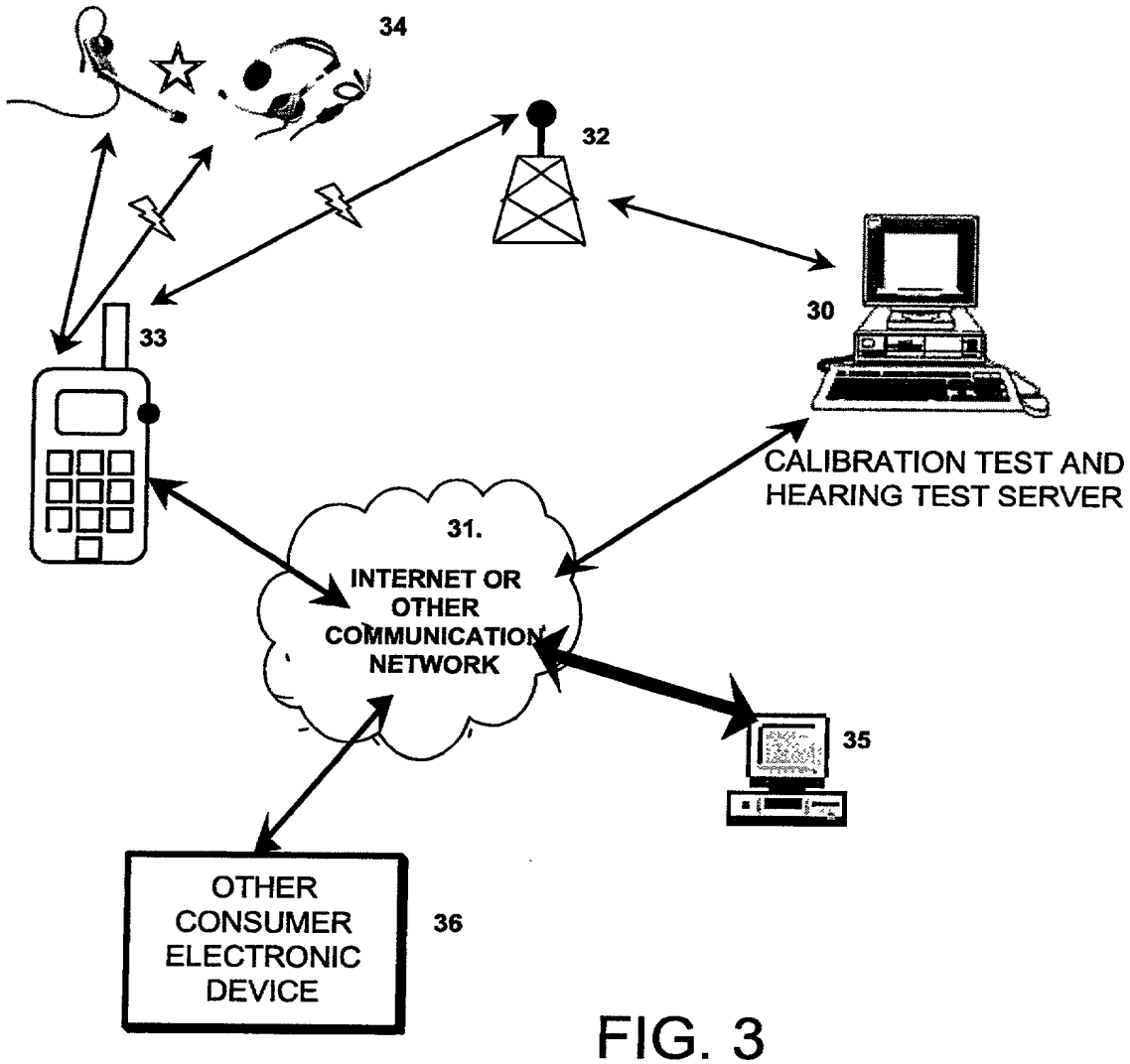


FIG. 3

US 9,369,821 B2

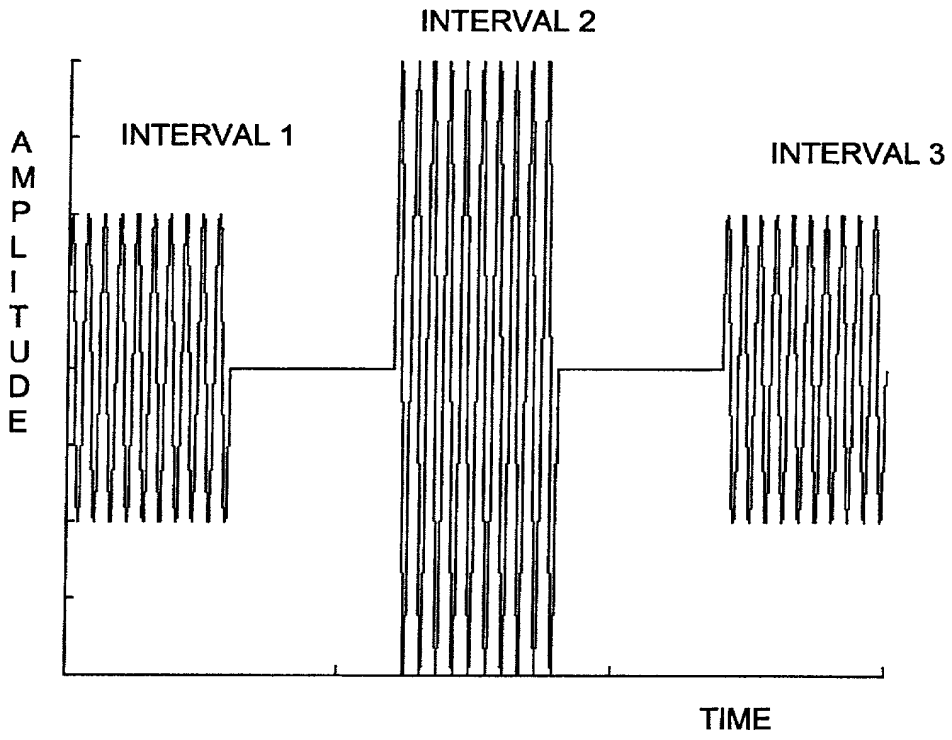


FIG. 4

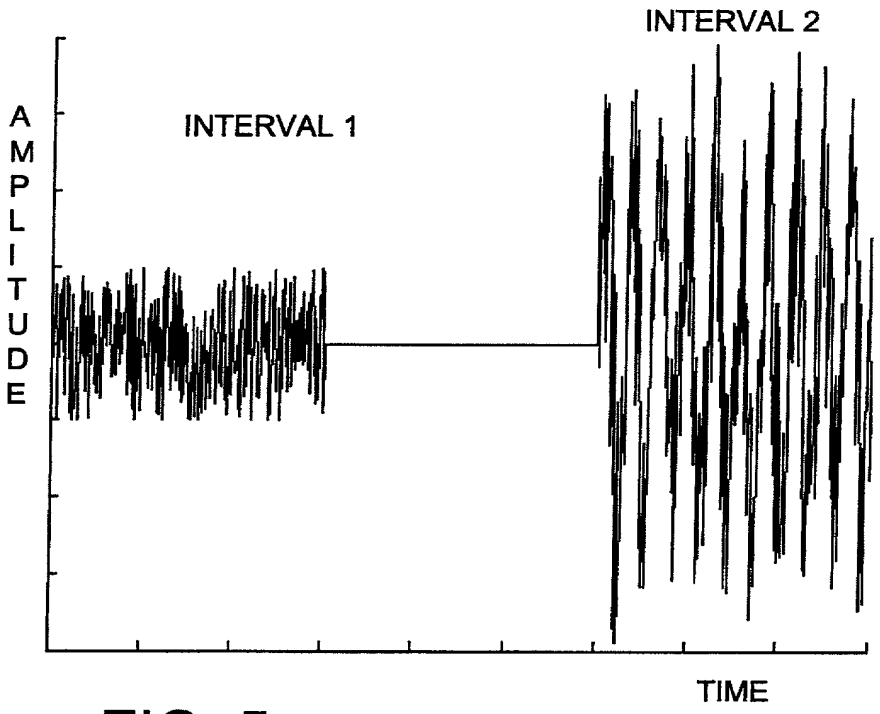


FIG. 5

Petitioner's Exhibit 1013

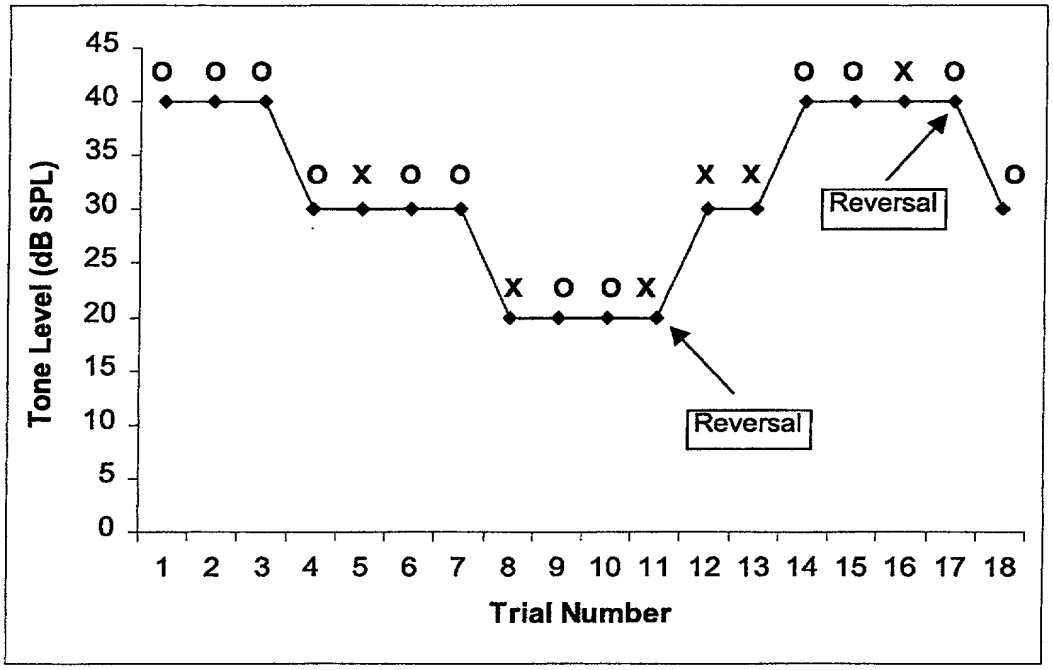


FIG. 6

Petitioner's Exhibit 1013-1

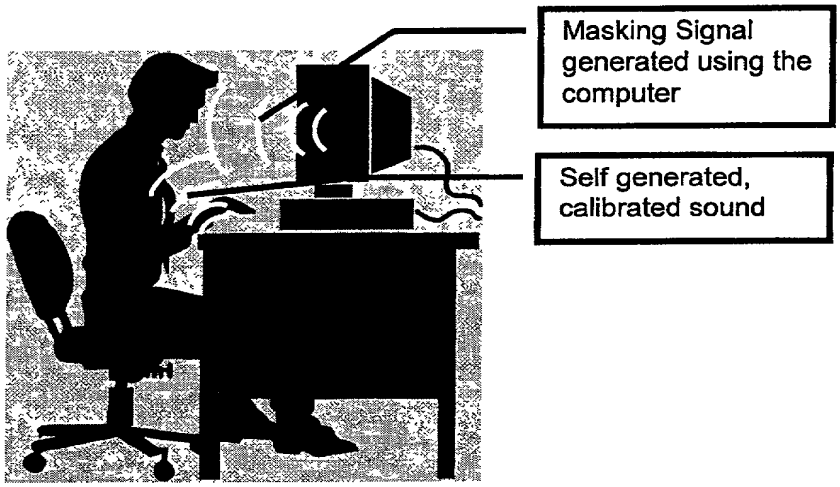


FIG. 7

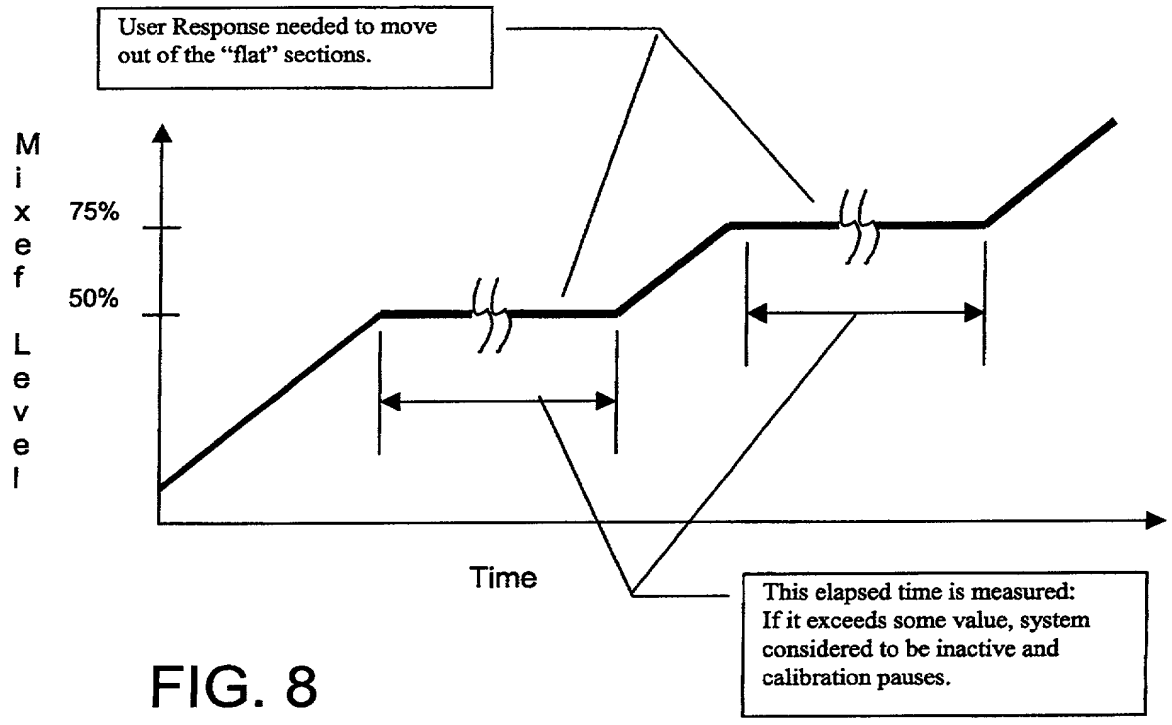


FIG. 8

Sonos, Inc. Exhibit 1013
Page 6 of 30

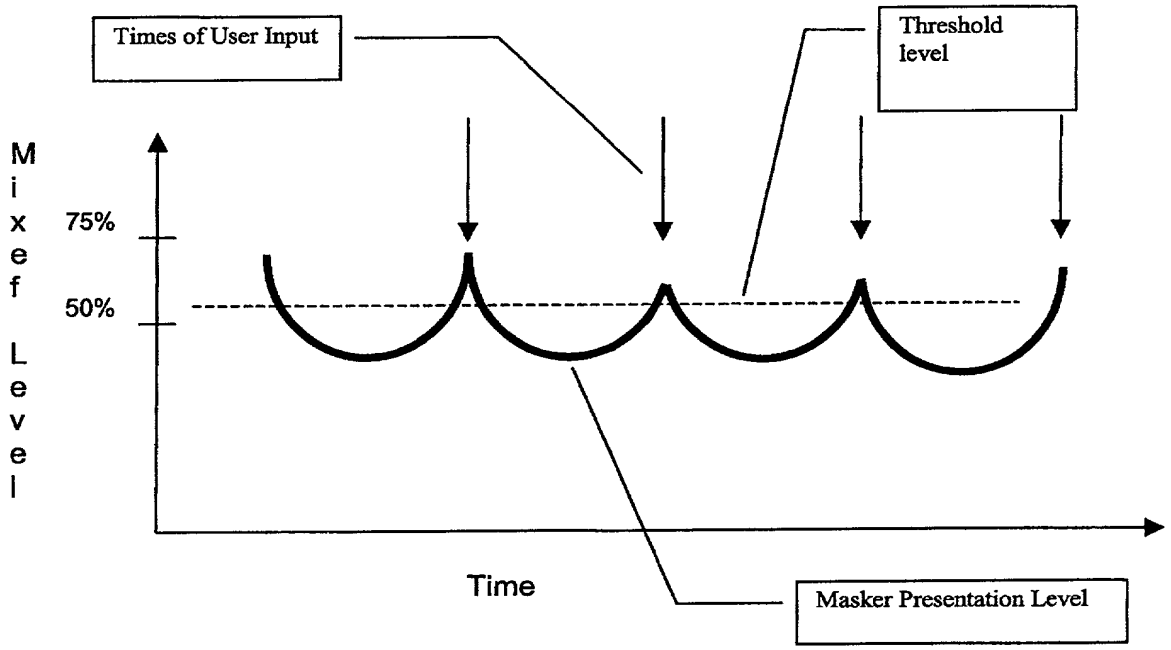


FIG. 9

Sonos, Inc. Exhibit 1013
Page 7 of 30

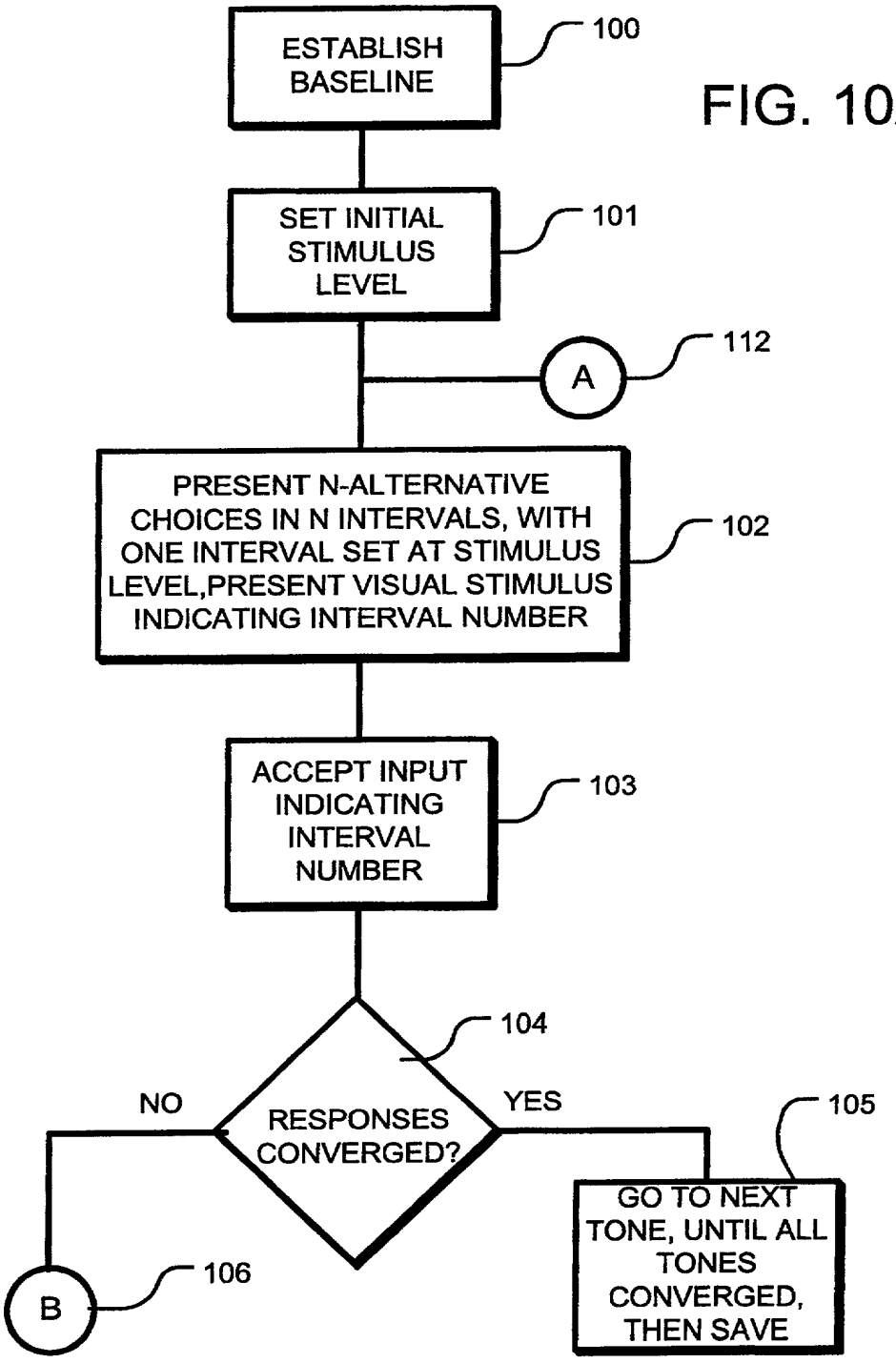
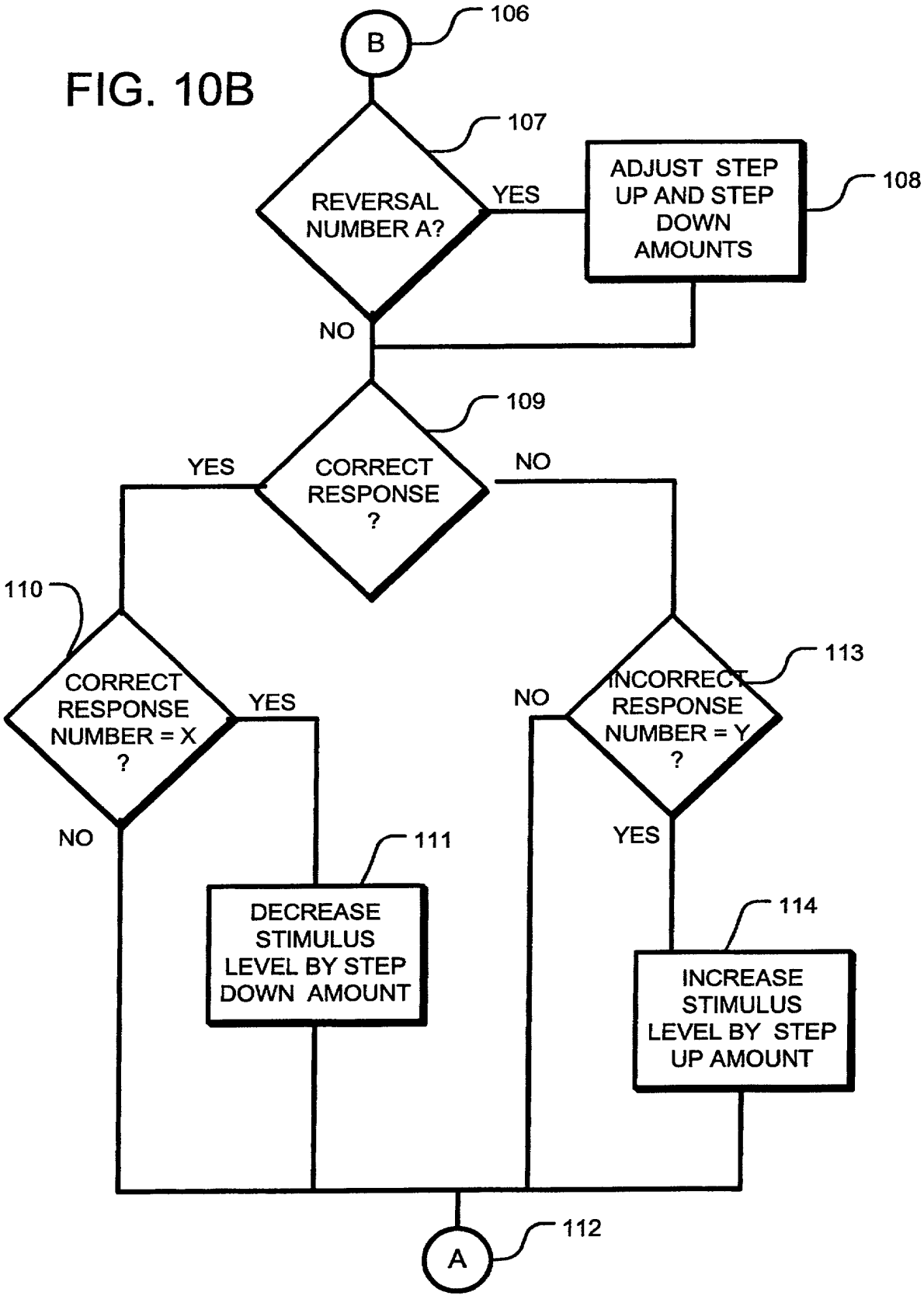


FIG. 10A

US 9,968,306 B2

FIG. 10B



Petitioner's Exhibit 1013

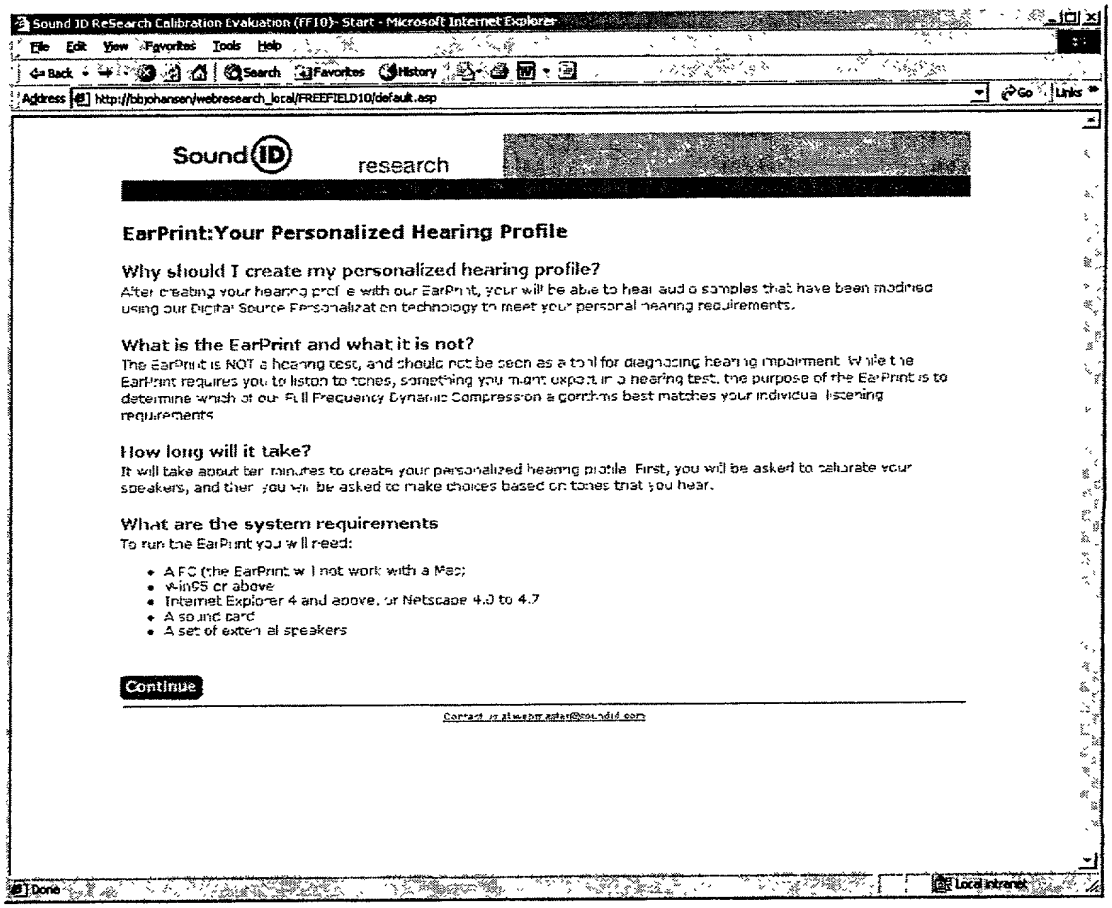

Sound 3D ReSearch Calibration Evaluation (FF10)- Start - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://bbjohansen/webresearch_local/FREEFIELD10/default.asp
Go Links
Sound ID research
EarPrint:Your Personalized Hearing Profile
Why should I create my personalized hearing profile?
After creating your hearing profile with our EarPrint, you will be able to hear audio samples that have been modified using our Digital Source Personalization technology to meet your personal hearing requirements.
What is the EarPrint and what it is not?
The EarPrint is NOT a hearing test, and should not be seen as a tool for diagnosing hearing impairment. While the EarPrint requires you to listen to tones, something you might expect in a hearing test, the purpose of the EarPrint is to determine which of our Full Frequency Dynamic Compression algorithms best matches your individual listening requirements.
How long will it take?
It will take about ten minutes to create your personalized hearing profile. First, you will be asked to calibrate your speakers, and then you will be asked to make choices based on tones that you hear.
What are the system requirements
To run the EarPrint you will need:
A PC (the EarPrint will not work with a Mac)
Win95 or above
Internet Explorer 4 and above, or Netscape 4.0 to 4.7
A sound card
A set of external speakers
Continue
Done
Local intranet

FIG. 11

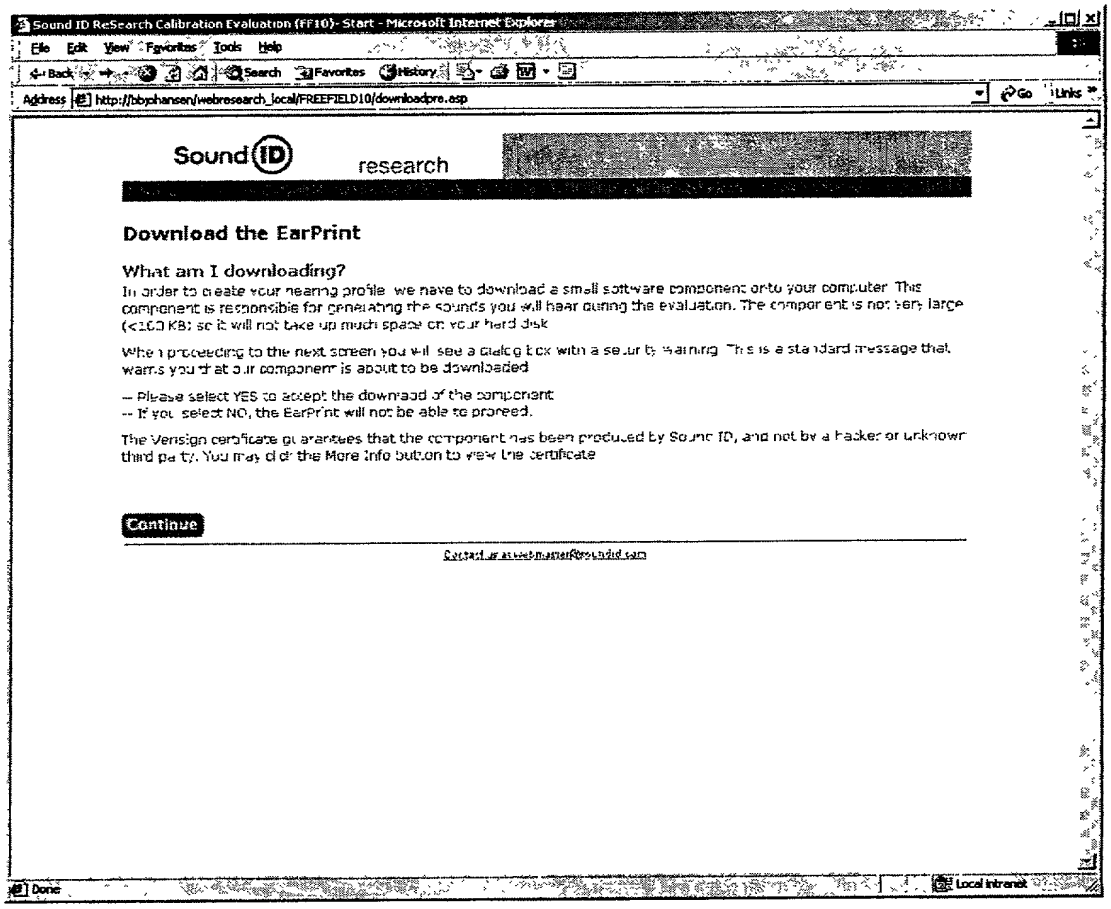

Sound ID ReSearch Calibration Evaluation (FF10) - Start - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://bbyhansen/webresearch_local/FREEFIELD10/downloadpre.asp
Go Links
Sound ID research
Download the EarPrint
What am I downloading?
In order to create your hearing profile we have to download a small software component onto your computer. This component is responsible for generating the sounds you will hear during the evaluation. The component is not very large (<100 KB) so it will not take up much space on your hard disk.
When proceeding to the next screen you will see a dialog box with a security warning. This is a standard message that warns you that a component is about to be downloaded.
-- Please select YES to accept the download of the component.
-- If you select NO, the EarPrint will not be able to proceed.
The Verisign certificate guarantees that the component has been produced by Sound ID, and not by a hacker or unknown third party. You may click the More Info button to view the certificate.
Continue
Done
Local intranet

FIG. 12

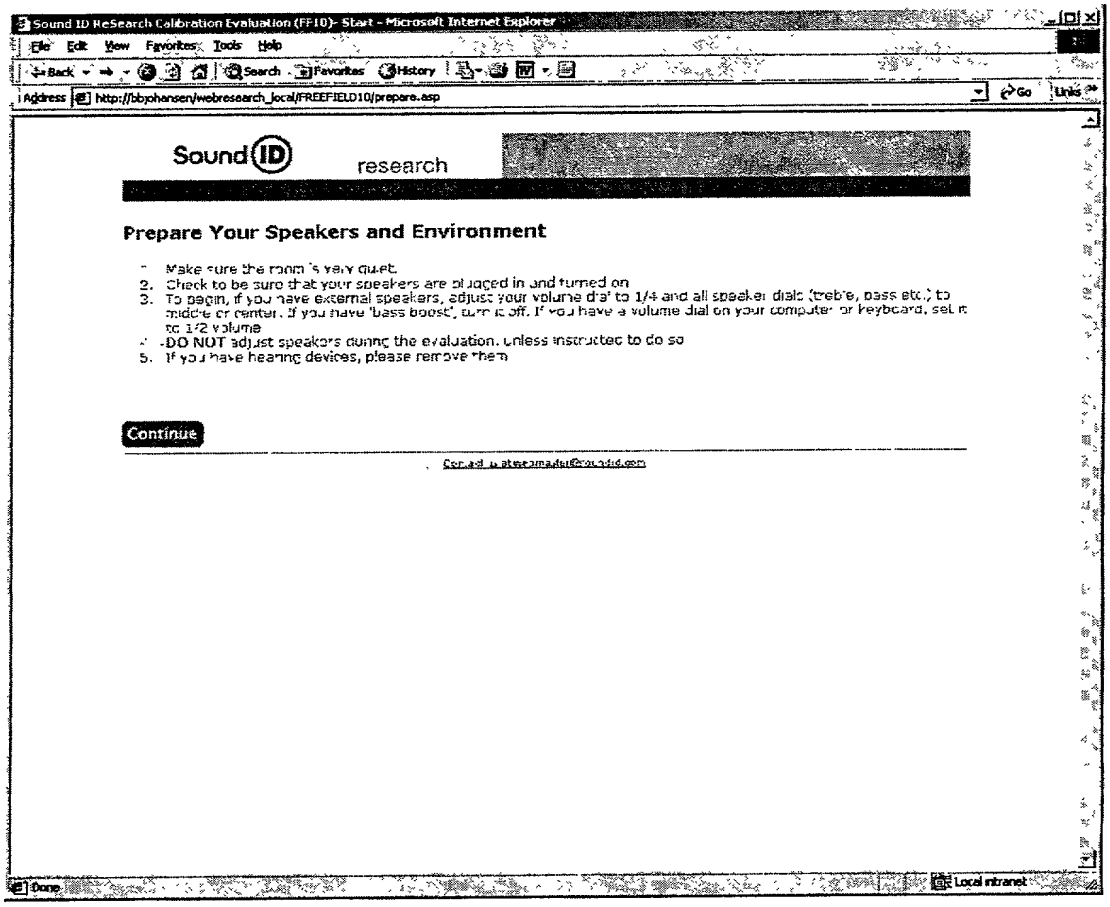

Sound ID ReSearch Calibration Evaluation (FF10)- Start - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://bbjohansen/webresearch_local/FREEFIELD10/prepare.asp
Go Links
Sound ID research
Prepare Your Speakers and Environment
1. Make sure the room is very quiet.
2. Check to be sure that your speakers are plugged in and turned on
3. To begin, if you have external speakers, adjust your volume dial to 1/4 and all speaker dials (treble, bass etc.) to middle or center. If you have 'bass boost', turn it off. If you have a volume dial on your computer or keyboard, set it to 1/2 volume
4. DO NOT adjust speakers during the evaluation. Unless instructed to do so
5. If you have hearing devices, please remove them
Continue
Done
Local intranet

FIG. 13

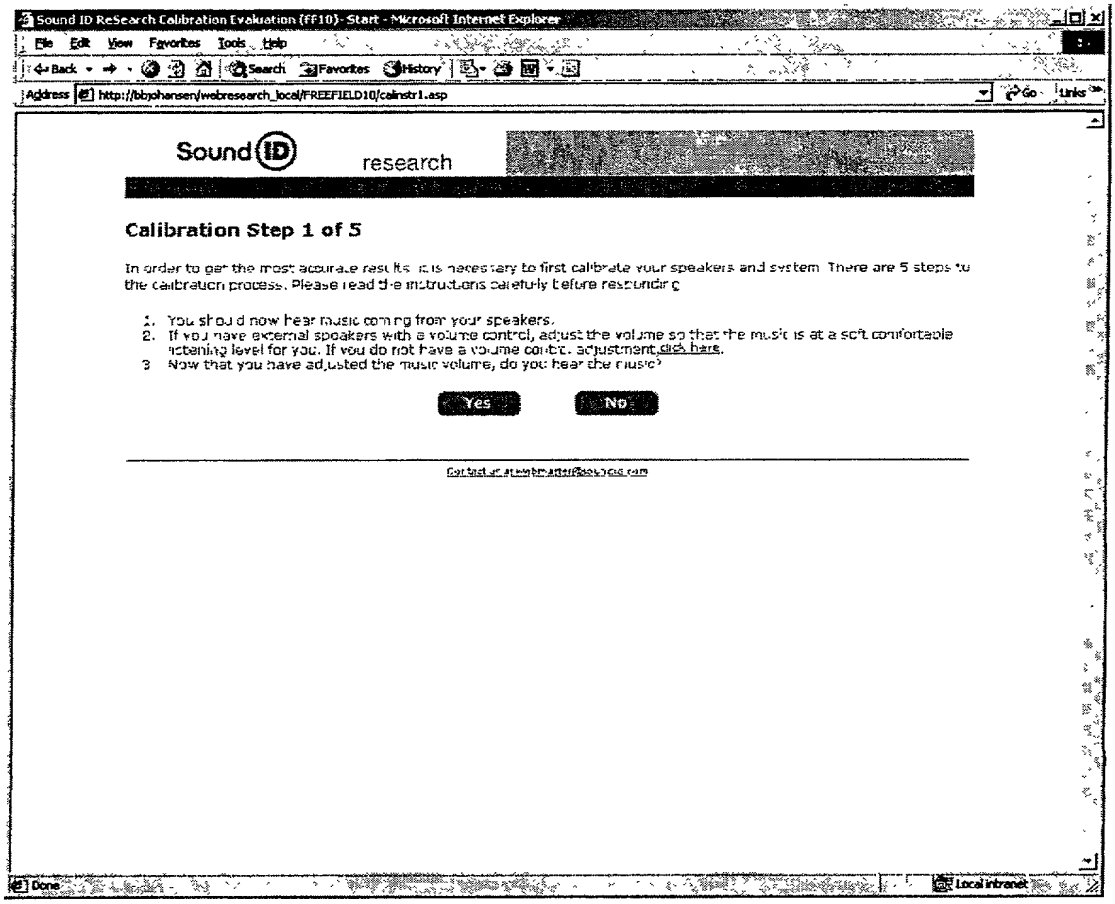

Sound ID Research Calibration Evaluation (FF10) - Start - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://bbjohansen/webresearch_local/FREEFIELD10/calinstr1.asp
Go Links
Sound ID research
Calibration Step 1 of 5
In order to get the most accurate results it is necessary to first calibrate your speakers and system. There are 5 steps to the calibration process. Please read the instructions carefully before responding.
1. You should now hear music coming from your speakers.
2. If you have external speakers with a volume control, adjust the volume so that the music is at a soft comfortable listening level for you. If you do not have a volume control, adjustment click here.
3. Now that you have adjusted the music volume, do you hear the music?
Yes
No
Done
Local intranet

FIG. 14

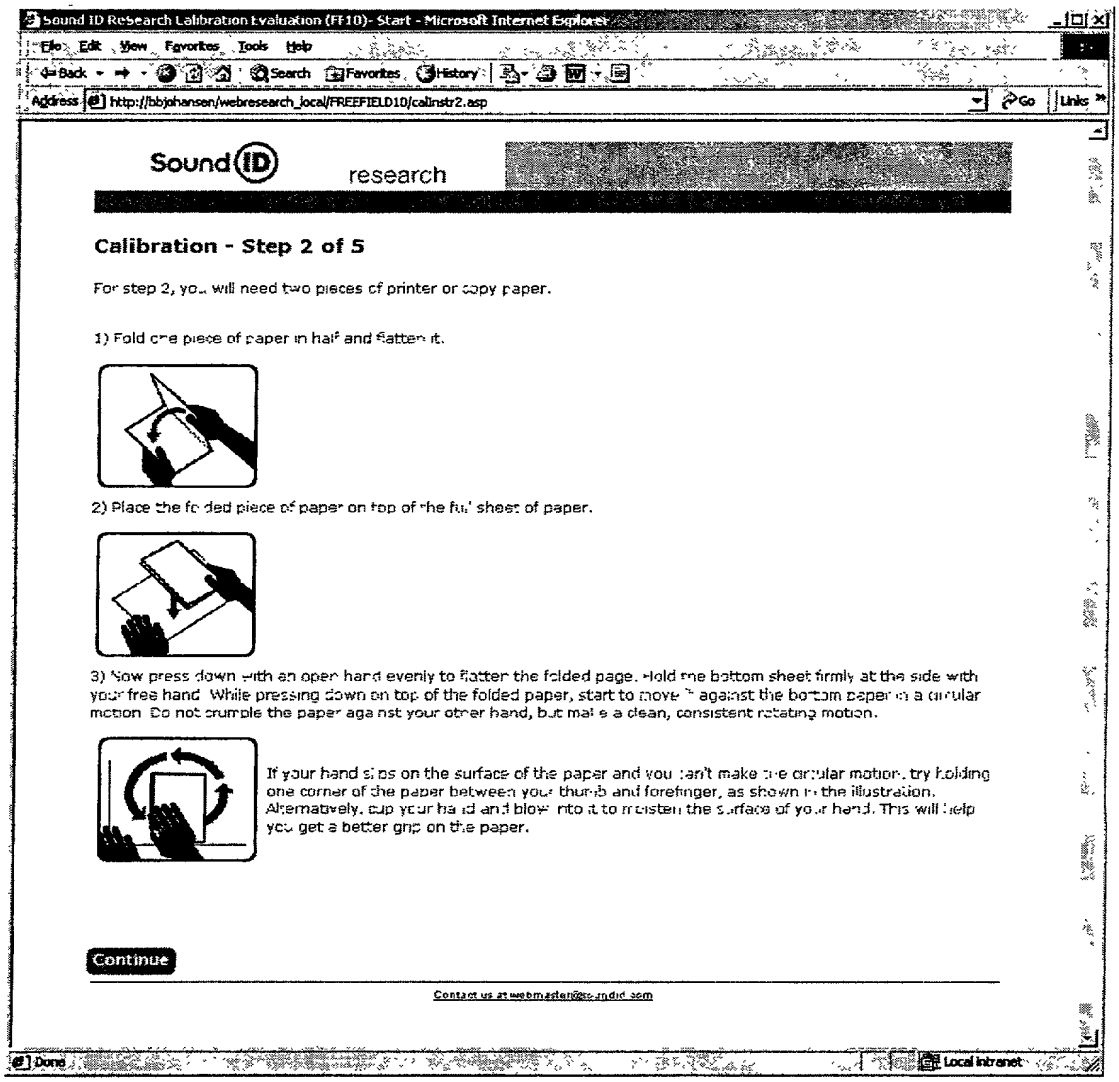

Sound ID Research Calibration Evaluation (FF10)- Start - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://bbjohansen/webresearch_local/FREEFIELD10/calinstr2.asp
Go Links
Sound ID research
Calibration - Step 2 of 5
For step 2, you will need two pieces of printer or copy paper.
1) Fold one piece of paper in half and flatten it.
2) Place the folded piece of paper on top of the full sheet of paper.
3) Now press down with an open hand evenly to flatten the folded page. Hold the bottom sheet firmly at the side with your free hand. While pressing down on top of the folded paper, start to move it against the bottom paper in a circular motion. Do not crumple the paper against your other hand, but make a clean, consistent rotating motion.
If your hand slips on the surface of the paper and you can't make the circular motion, try holding one corner of the paper between your thumb and forefinger, as shown in the illustration. Alternatively, cup your hand and blow into it to moisten the surface of your hand. This will help you get a better grip on the paper.
Continue
Contact us at webmaster@cc.rndid.com
Done
Local Intranet

FIG. 15

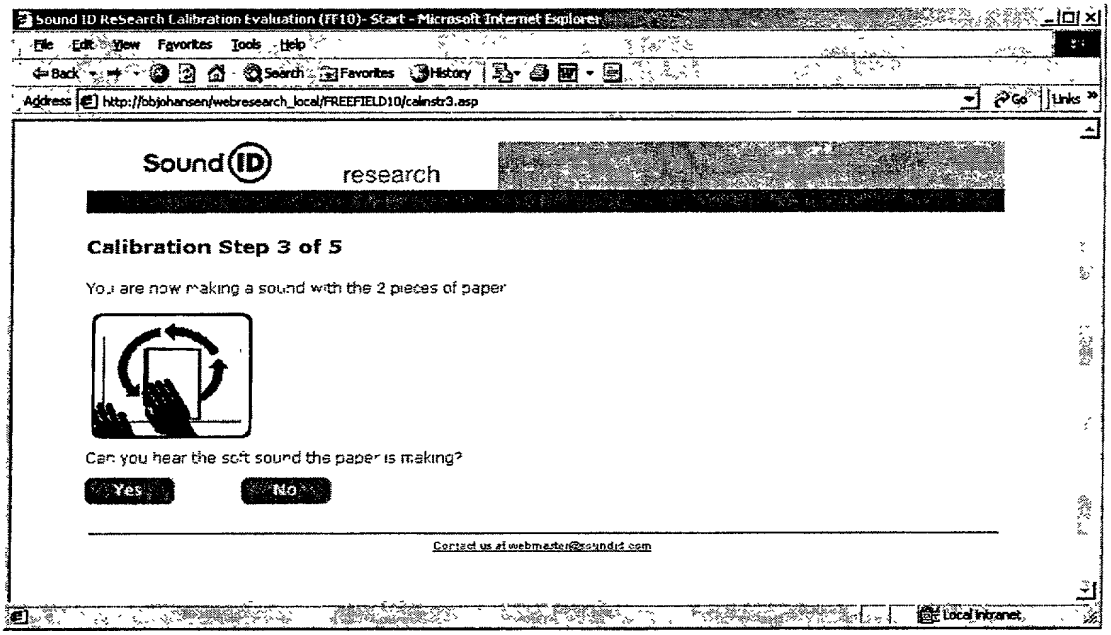


FIG. 16

Sonos, Inc. Exhibit 1013
Sonos, Inc. v. Sound United, LLC
IPR2020-00323

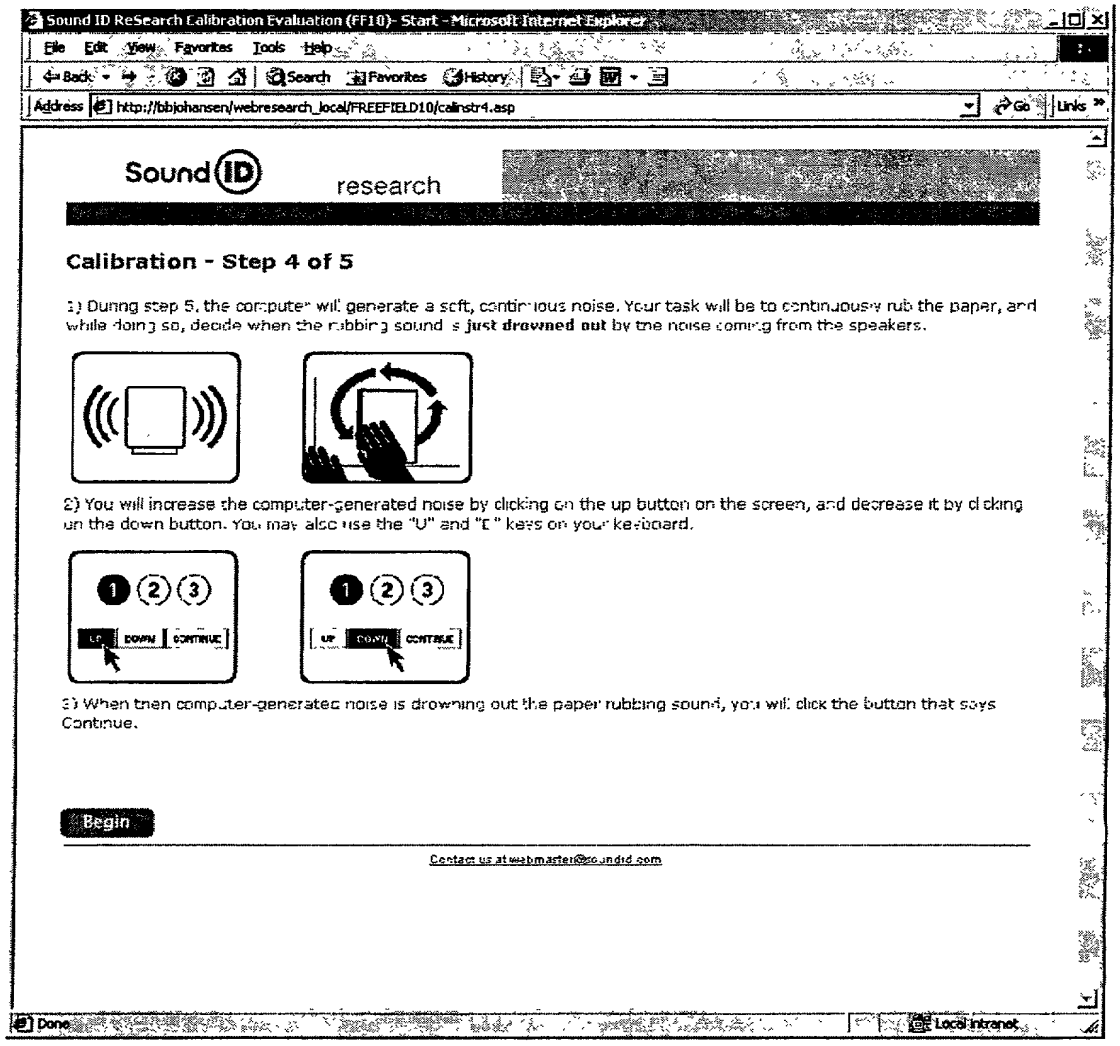

Sound ID ReSearch Calibration Evaluation (FF10)- Start - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://bbjohansen/webresearch_local/FREEFIELD10/calinstr4.asp
Go Links
Sound ID research
Calibration - Step 4 of 5
1) During step 5, the computer will generate a soft, continuous noise. Your task will be to continuously rub the paper, and while doing so, decide when the rubbing sound is just drowned out by the noise coming from the speakers.
2) You will increase the computer-generated noise by clicking on the up button on the screen, and decrease it by clicking on the down button. You may also use the "U" and "D" keys on your keyboard.
1 2 3
DOWN CONTINUE
1 2 3
UP DOWN CONTINUE
3) When then computer-generated noise is drowning out the paper rubbing sound, you will click the button that says Continue.
Begin
Contact us at webmaster@soundid.com
Done
Local intranet

FIG. 17

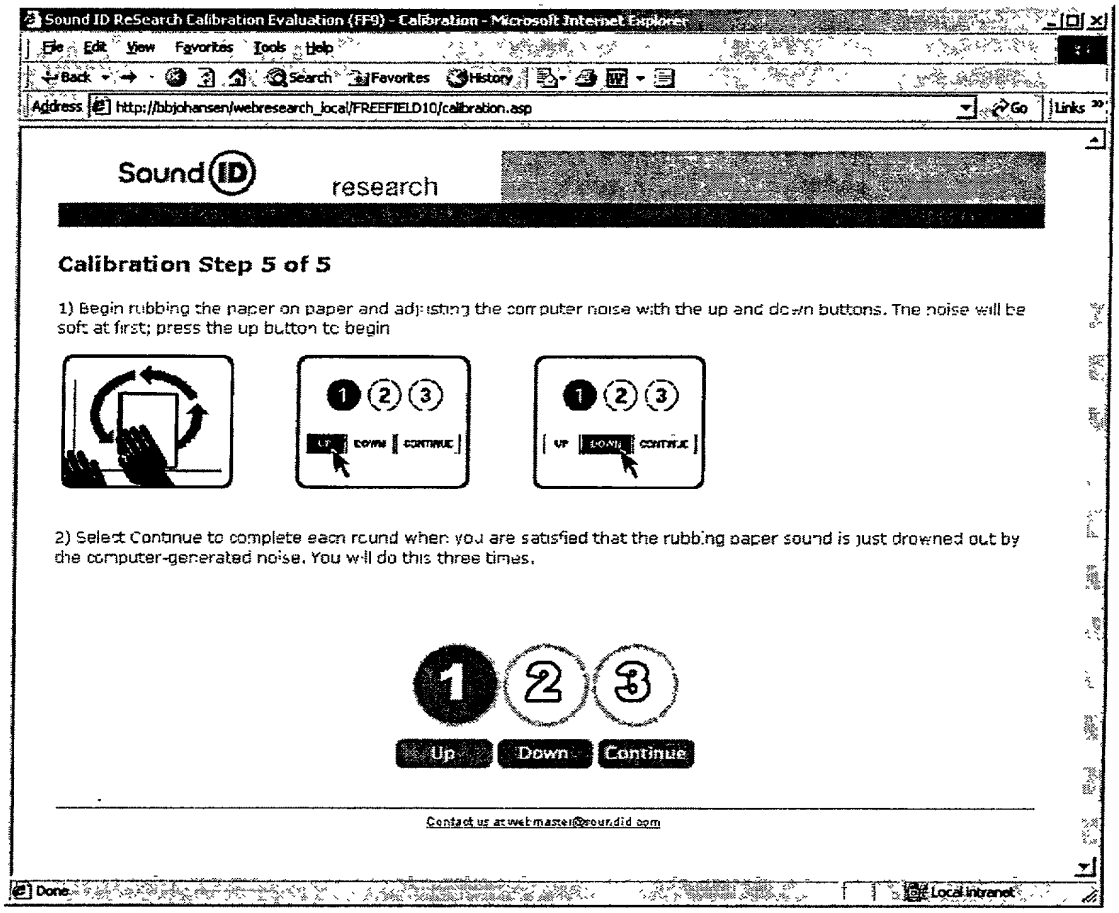

Sound ID ReSearch Calibration Evaluation (FF9) - Calibration - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://bbjohansen/webresearch_local/FREEFIELD10/calibration.asp
Go Links
Sound ID research
Calibration Step 5 of 5
1) Begin rubbing the paper on paper and adjusting the computer noise with the up and down buttons. The noise will be soft at first; press the up button to begin
1 2 3
Up Down Continue
2) Select Continue to complete each round when you are satisfied that the rubbing paper sound is just drowned out by the computer-generated noise. You will do this three times.
1 2 3
Up Down Continue
Contact us at webmaster@soundid.com
Done
Local intranet

FIG. 18

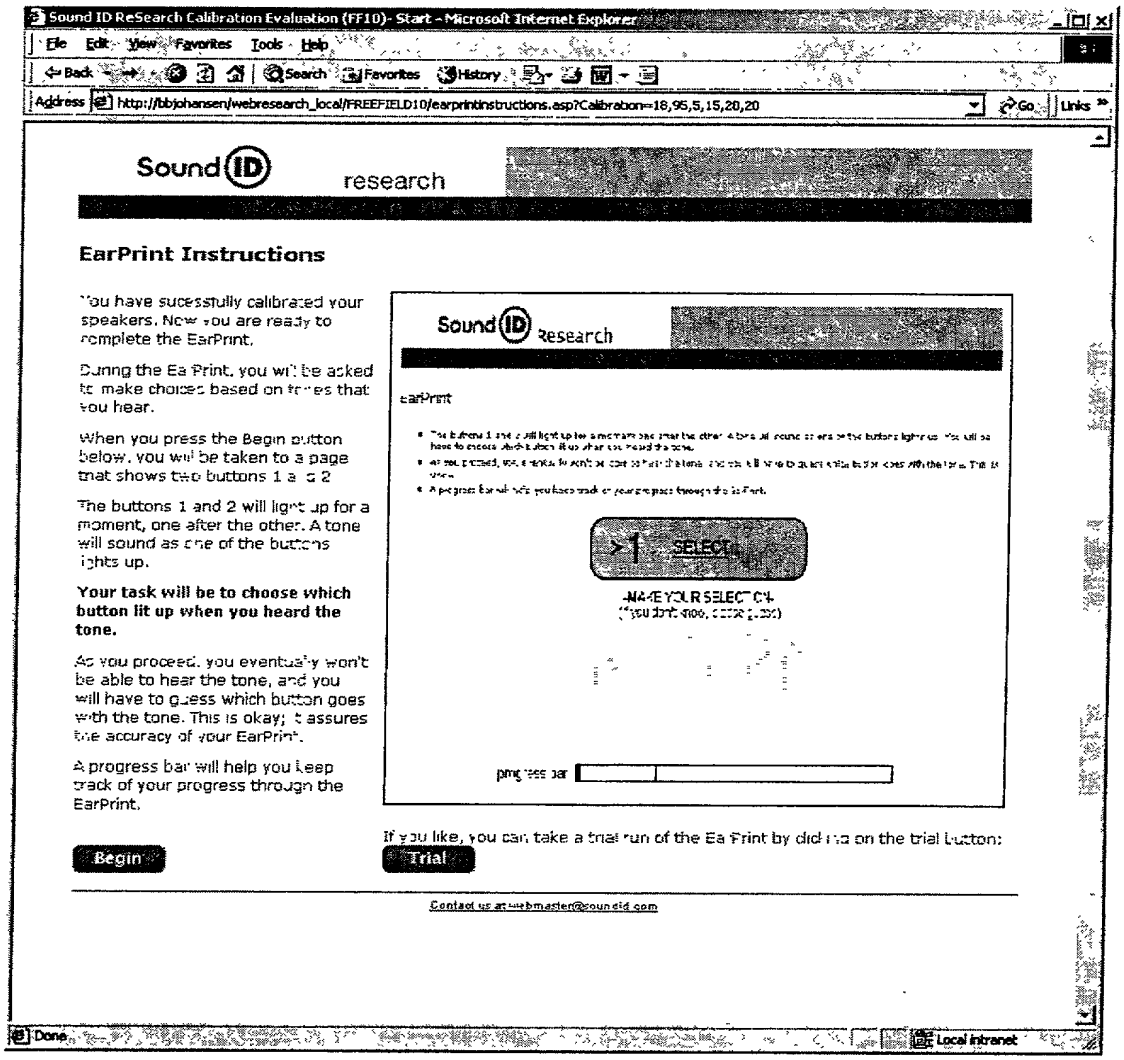

Sound ID ReSearch Calibration Evaluation (FF10) - Start - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://bbjohansen/webresearch_local/FREEFIELD10/earprintinstructions.asp?Calibration=18,95,5,15,20,20
Go Links
Sound ID research
EarPrint Instructions
You have sucessfully calibrated your speakers. Now you are ready to complete the EarPrint.
During the Ea Print, you wi' be asked tc make choices based on tones that you hear.
When you press the Begin button below, you wil be taken to a page that shows two buttons 1 a d 2
The buttons 1 and 2 will light up for a moment, one after the other. A tone will sound as one of the buttons lights up.
Your task will be to choose which button lit up when you heard the tone.
As you proceed, you eventually won't be able to hear the tone, and you will have to guess which button goes with the tone. This is okay; t assures the accuracy of your EarPrint.
A progress bar will help you keep track of your progress through the EarPrint.
Begin
Sound ID research
earPrint
>1 SELECT
MAKE YOUR SELECTION
progress bar
If you like, you can take a trial run of the Ea Print by clicking on the trial button:
Trial
Contact us at webmaster@soundid.com
Done
Local intranet

FIG. 19

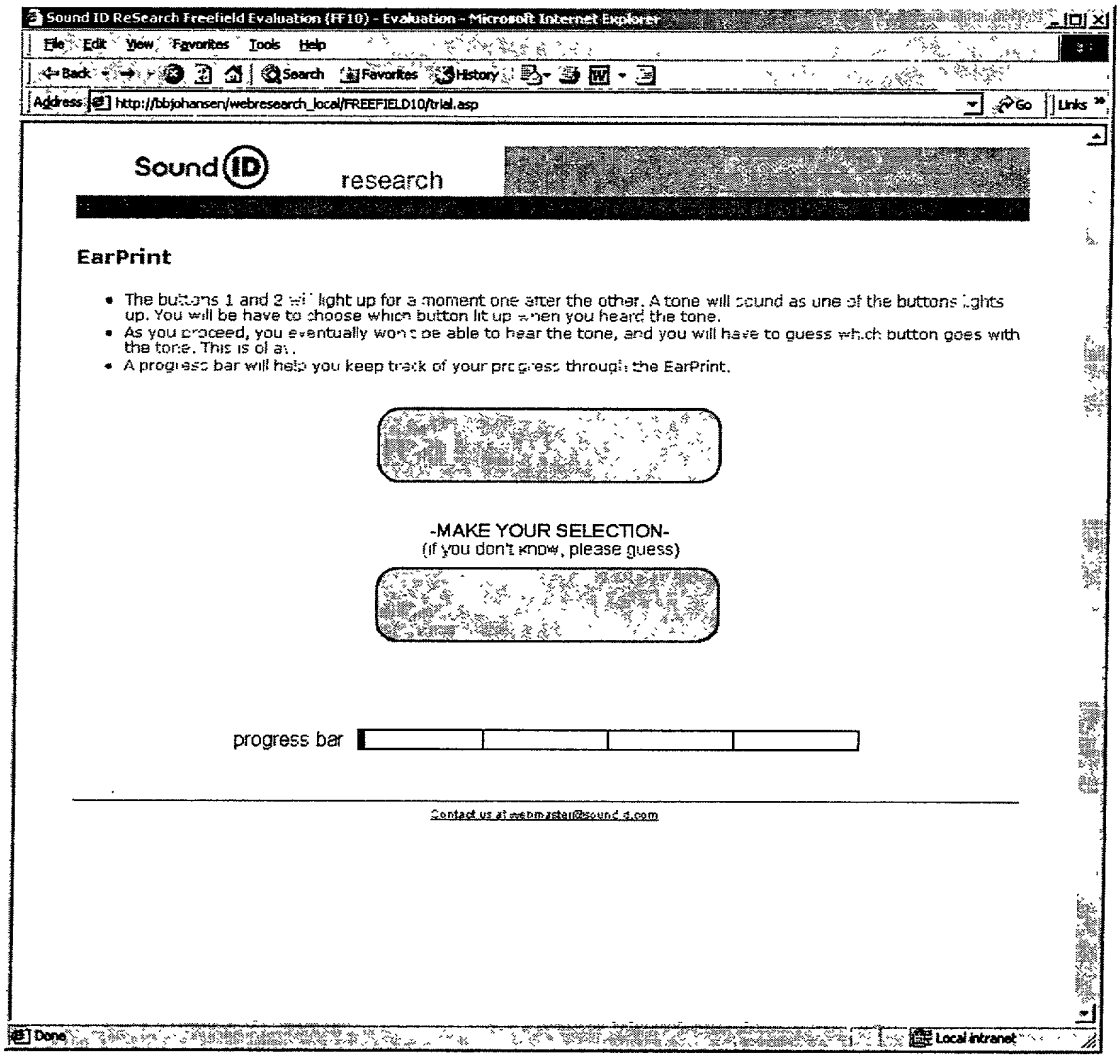

Sound ID ReSearch Freefield Evaluation (FF10) - Evaluation - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://bbjohansen/webresearch_local/FREEFIELD10/trial.asp
Go Links
Sound ID research
EarPrint
The buttons 1 and 2 will light up for a moment one after the other. A tone will sound as one of the buttons lights up. You will be have to choose which button lit up when you heard the tone.
As you proceed, you eventually won't be able to hear the tone, and you will have to guess which button goes with the tone. This is ok!.
A progress bar will help you keep track of your progress through the EarPrint.
-MAKE YOUR SELECTION-
(if you don't know, please guess)
progress bar
Contact us at webmaster@sound-id.com
Done
Local intranet

FIG. 20

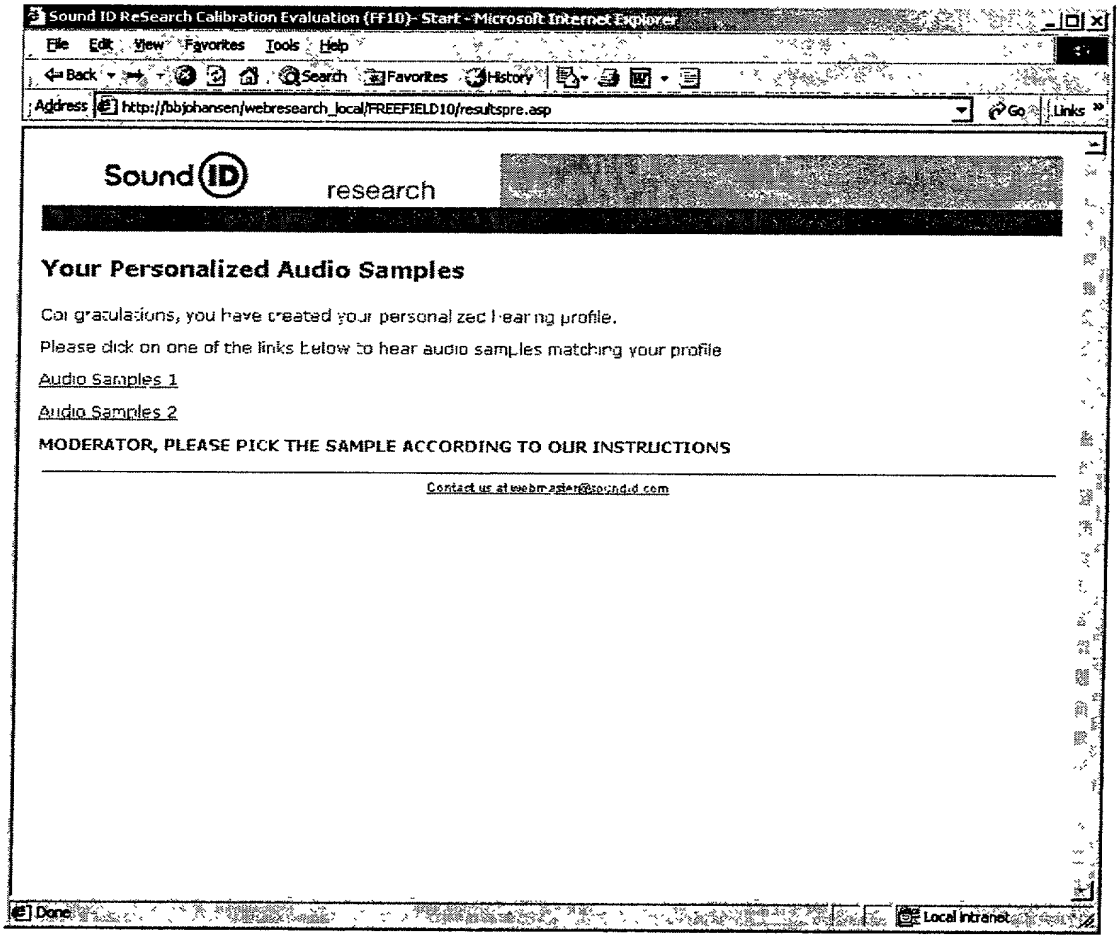

Sound ID ReSearch Calibration Evaluation (FF10)- Start - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://bbjohansen/webresearch_local/FREEFIELD10/resultspre.asp
Go Links
Sound ID research
Your Personalized Audio Samples
Congratulations, you have created your personal 2ec Hearing profile.
Please click on one of the links below to hear audio samples matching your profile
Audio Samples 1
Audio Samples 2
MODERATOR, PLEASE PICK THE SAMPLE ACCORDING TO OUR INSTRUCTIONS
Contact us at webmaster@soundid.com
Done
Local intranet

FIG. 21

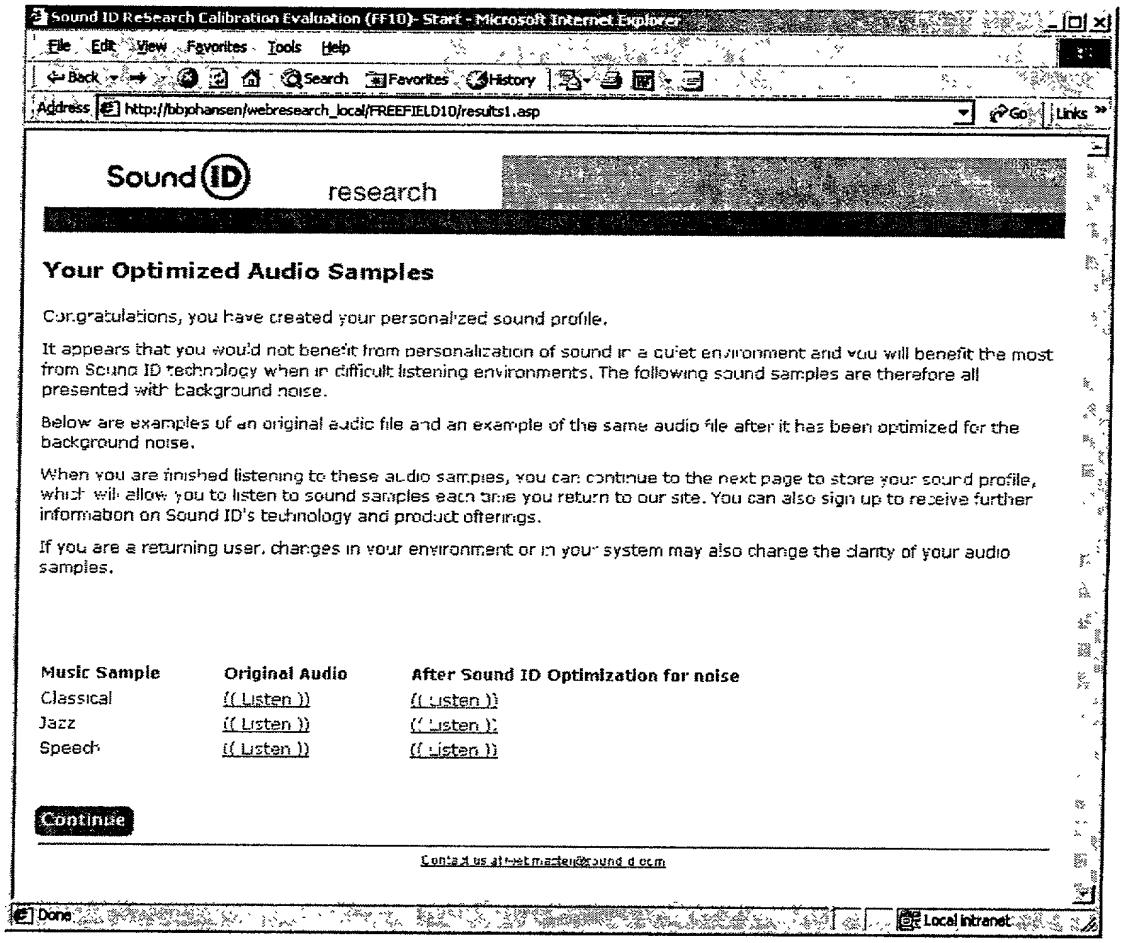

Sound ID ReSearch Calibration Evaluation (FF10)- Start - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://bbjohansen/webresearch_local/FREEFIELD10/results1.asp
Go Links
Sound ID research
Your Optimized Audio Samples
Congratulations, you have created your personalized sound profile.
It appears that you would not benefit from personalization of sound in a quiet environment and you will benefit the most from Sound ID technology when in difficult listening environments. The following sound samples are therefore all presented with background noise.
Below are examples of an original audio file and an example of the same audio file after it has been optimized for the background noise.
When you are finished listening to these audio samples, you can continue to the next page to store your sound profile, which will allow you to listen to sound samples each time you return to our site. You can also sign up to receive further information on Sound ID's technology and product offerings.
If you are a returning user, changes in your environment or in your system may also change the clarity of your audio samples.
Music Sample
Original Audio
After Sound ID Optimization for noise
Classical
((Listen))
((Listen))
Jazz
((Listen))
((Listen))
Speech
((Listen))
((Listen))
Continue
Done
Local intranet

FIG. 22

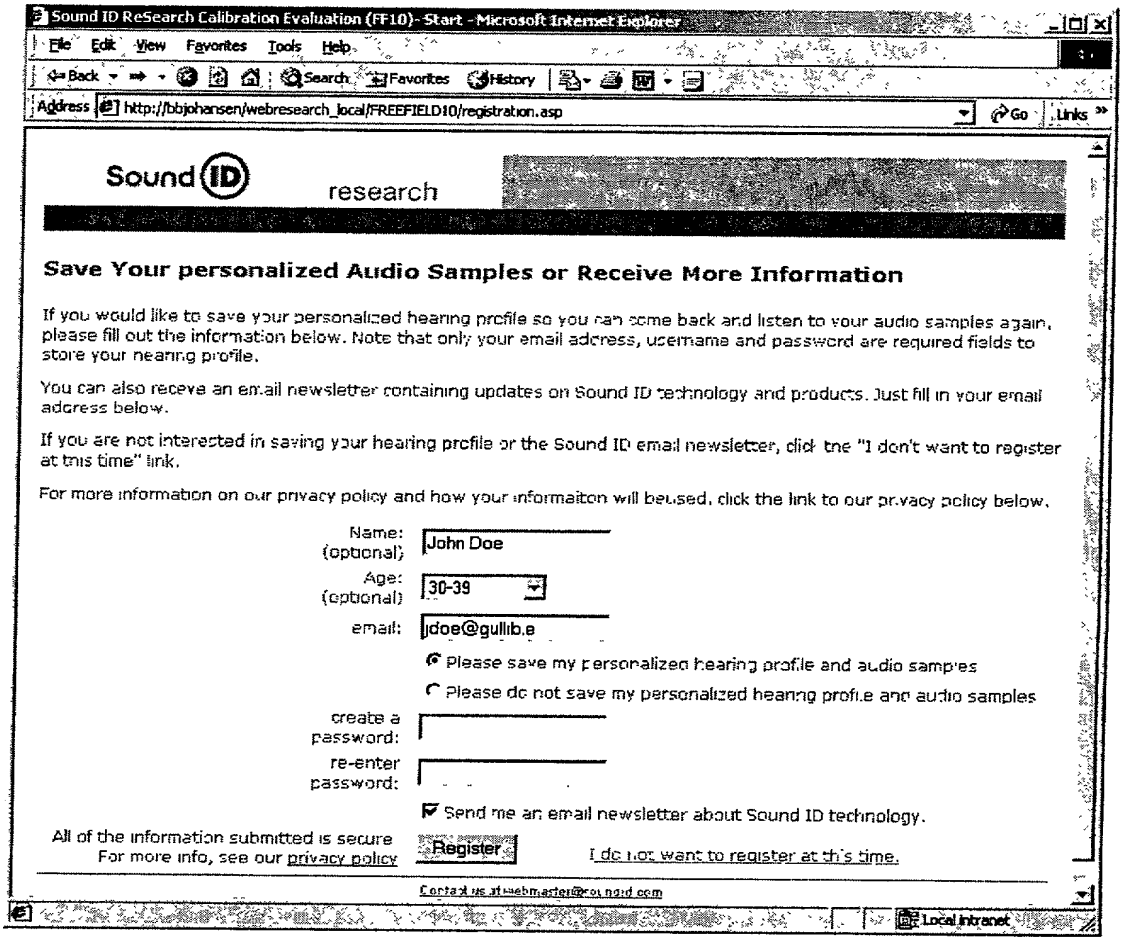

Sound ID ReSearch Calibration Evaluation (FF10)- Start - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://bbjohansen/webresearch_local/FREEFIELD10/registration.asp
Go Links
Sound ID research
Save Your personalized Audio Samples or Receive More Information
If you would like to save your personalized hearing profile so you can come back and listen to your audio samples again, please fill out the information below. Note that only your email address, username and password are required fields to store your hearing profile.
You can also receive an email newsletter containing updates on Sound ID technology and products. Just fill in your email address below.
If you are not interested in saving your hearing profile or the Sound ID email newsletter, click the "I don't want to register at this time" link.
For more information on our privacy policy and how your informaiton will beused, click the link to our privacy policy below.
Name: (optional)
John Doe
Age: (optional)
30-39
email:
jdoe@gullib.e
Please save my personalized hearing profile and audio samples
Please do not save my personalized hearing profile and audio samples
create a password:
re-enter password:
Send me an email newsletter about Sound ID technology.
All of the information submitted is secure
For more info, see our privacy policy
Register
I do not want to register at this time.
Contact us at webmaster@soundid.com
Local intranet

FIG. 23

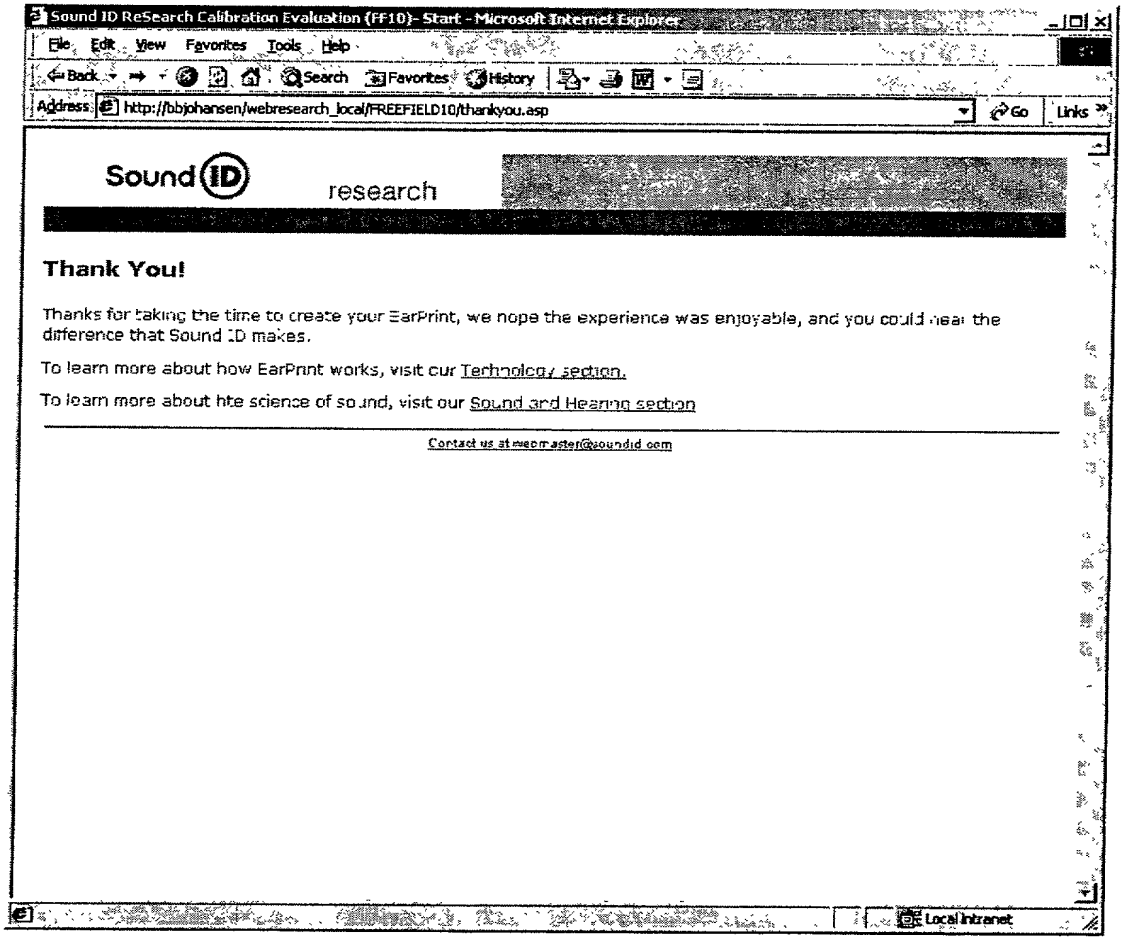


FIG. 24

Petitioner's Exhibit 1013

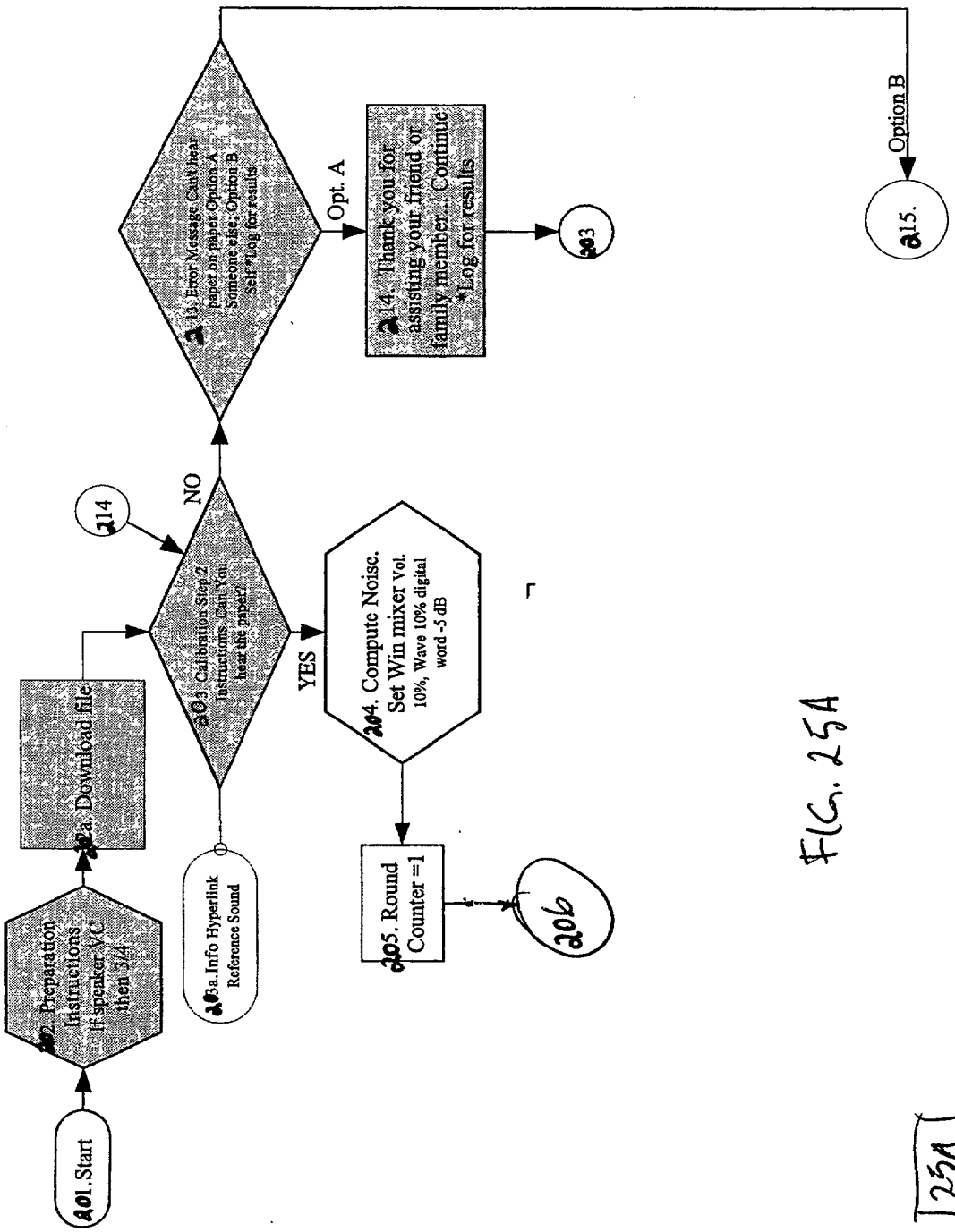
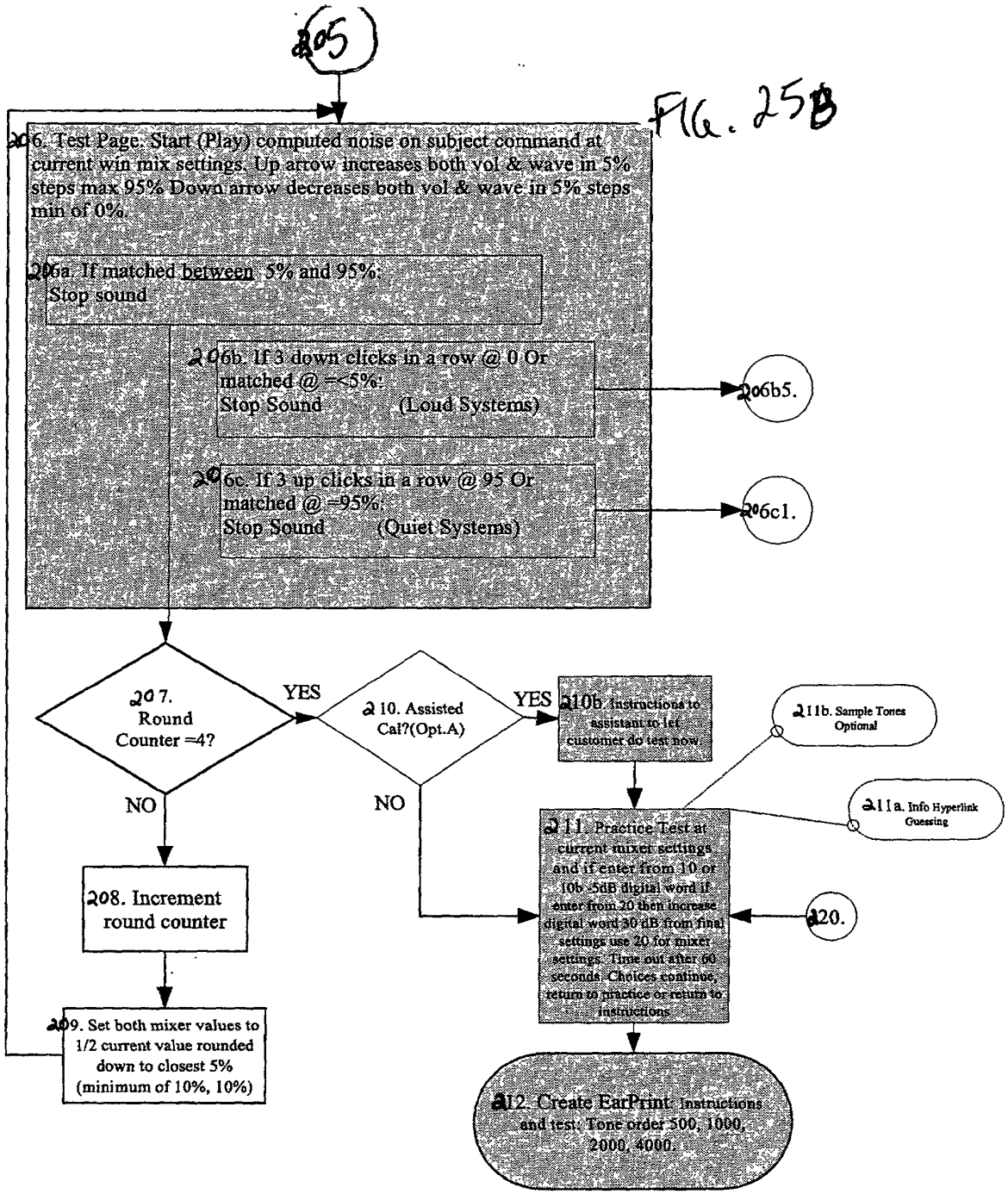


FIG. 25A

25A

25B


205
FIG. 25B
206. Test Page. Start (Play) computed noise on subject command at current win mix settings. Up arrow increases both vol & wave in 5% steps max 95% Down arrow decreases both vol & wave in 5% steps min of 0%.
206a. If matched between 5% and 95%: Stop sound
206b. If 3 down clicks in a row @ 0 Or matched @ =<5%: Stop Sound (Loud Systems)
206b5.
206c. If 3 up clicks in a row @ 95 Or matched @ =95%: Stop Sound (Quiet Systems)
206c1.
207. Round Counter =4?
YES
NO
210. Assisted Cal?(Opt.A)
YES
NO
210b. Instructions to assistant to let customer do test now
211b. Sample Tones Optional
211a. Info Hyperlink Guessing
208. Increment round counter
209. Set both mixer values to 1/2 current value rounded down to closest 5% (minimum of 10%, 10%)
211. Practice Test at current mixer settings and if enter from 10 or 10b .5dB digital word if enter from 20 then increase digital word 30 dB from final settings use 20 for mixer settings. Time out after 90 seconds. Choices continue, return to practice or return to instructions
220.
212. Create EarPrint. Instructions and test: Tone order 500, 1000, 2000, 4000

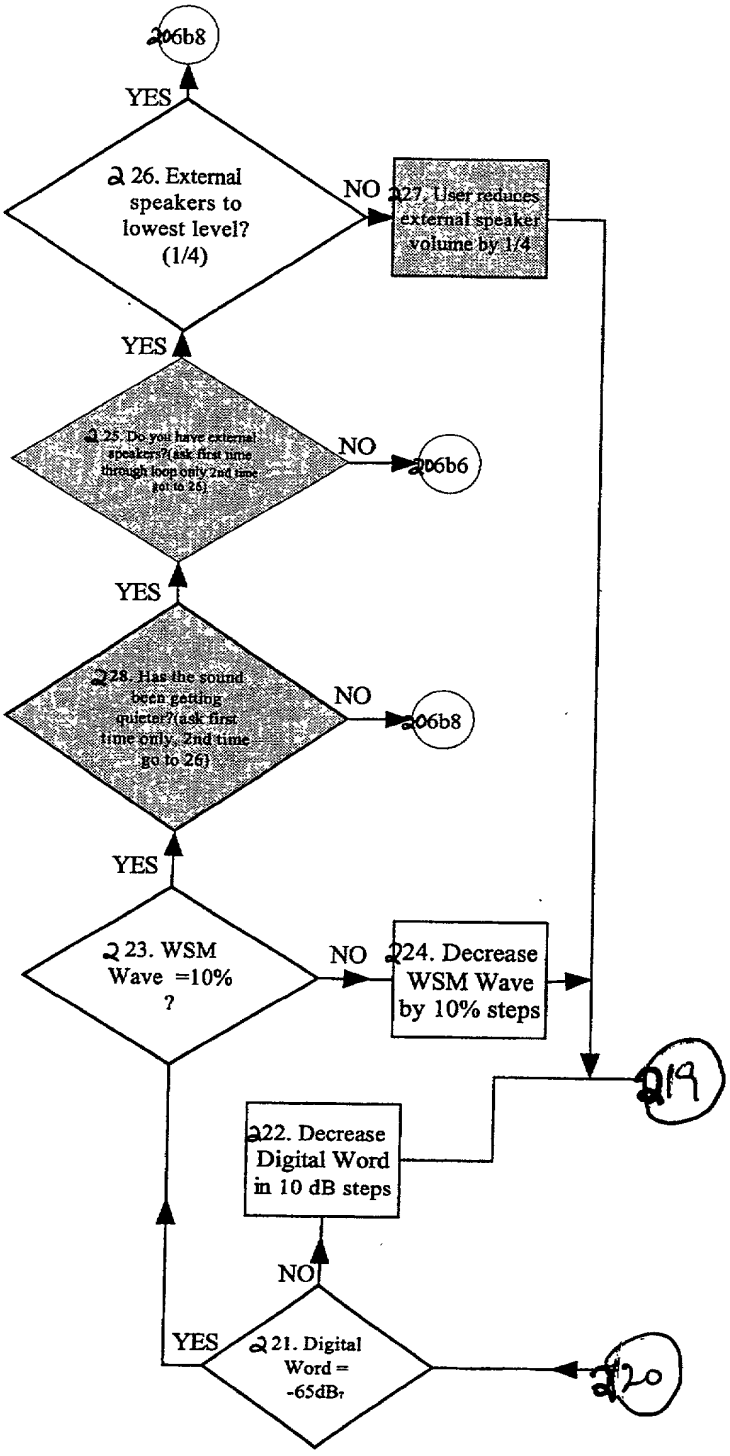


FIG 26A

Exhibit 1013 - Page 1 of 1

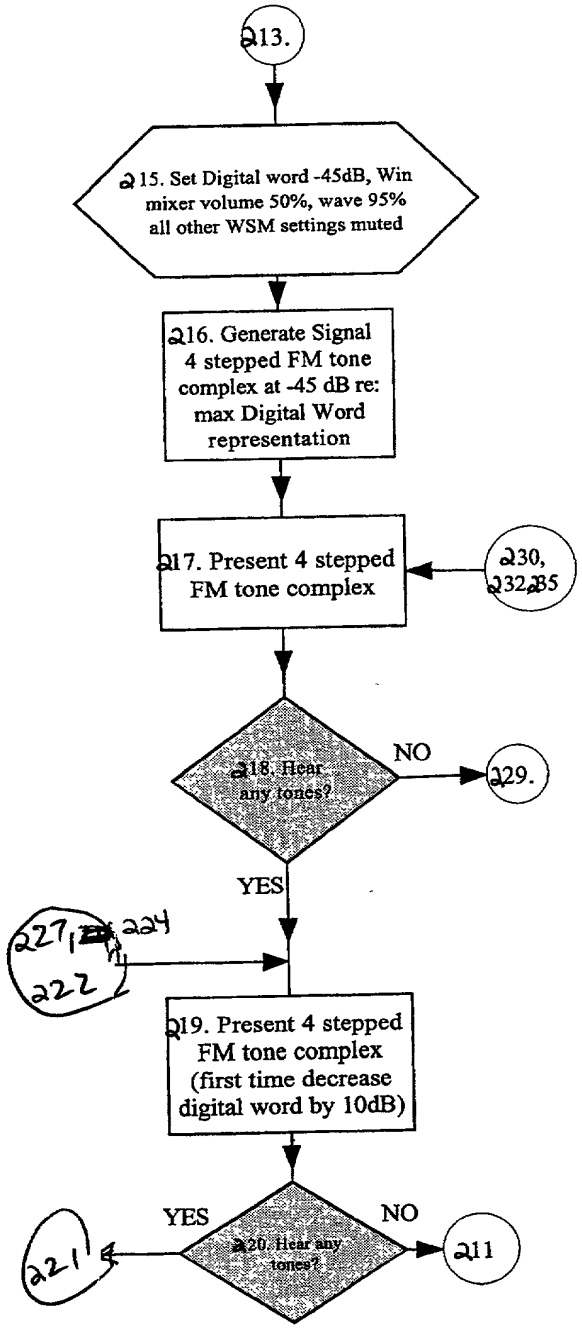

213.
215. Set Digital word -45dB, Win mixer volume 50%, wave 95% all other WSM settings muted
216. Generate Signal 4 stepped FM tone complex at -45 dB re: max Digital Word representation
217. Present 4 stepped FM tone complex
230, 232, 235
218. Hear any tones?
NO
229.
YES
227, 224
222
219. Present 4 stepped FM tone complex (first time decrease digital word by 10dB)
YES
NO
220. Hear any tones?
221
211

FIG. 26B

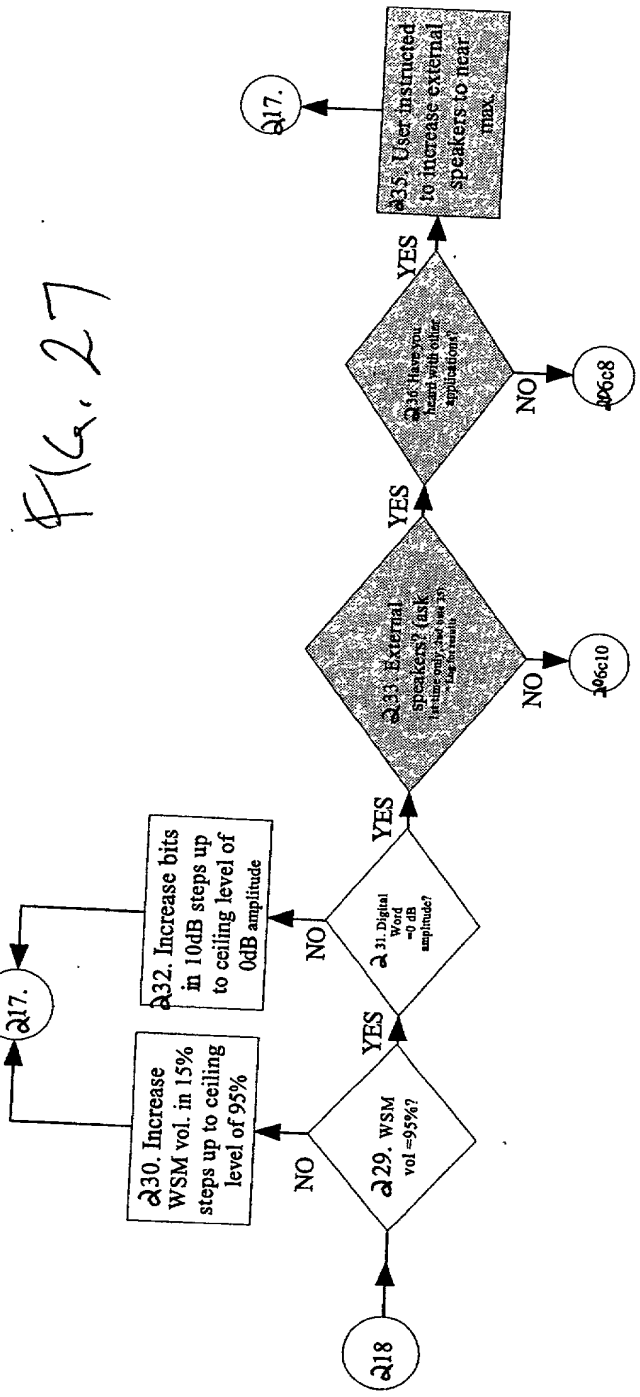

Q18
Q29. WSM vol =95%?
YES
NO
Q30. Increase WSM vol. in 15% steps up to ceiling level of 95%
Q17.
Q31. Digital Word =0 dB amplitude?
YES
NO
Q32. Increase bits in 10dB steps up to ceiling level of 0dB amplitude
Q17.
Q33. External speakers? (ask "Are you using external speakers?")
YES
NO
Q6c10
Q34. Have you heard with other applications?
YES
NO
Q6c8
Q35. User instructed to increase external speakers to near max.
Q17.

FIG. 27

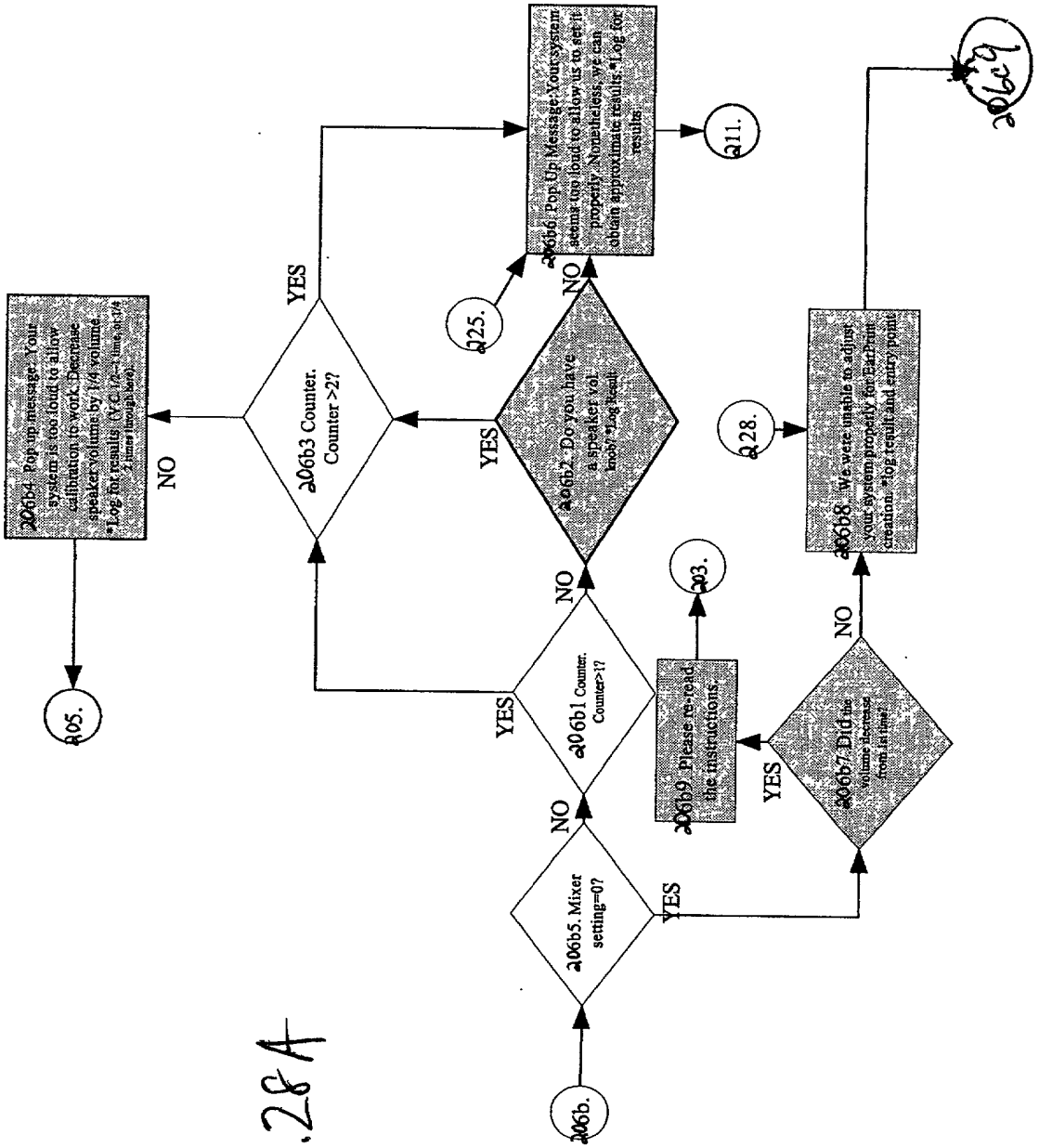

206b. Mixer setting=0?
YES
NO
206b1 Counter. Counter>1?
YES
NO
206b2. Do you have a speaker vol. knob? Log Result
YES
NO
206b3 Counter. Counter >2?
YES
NO
206b4 Pop up message: Your system is too loud to allow calibration to work. Decrease speaker volume by 1/4 volume. *Log for results (YC 1/2-3 times, 3/4 2 times through here)
206b5. Did the volume decrease from 1st time?
YES
NO
206b6 Pop Up Message: Your system seems too loud to allow us to set it properly. Nonetheless, we can obtain approximate results. *Log for results
206b7. Did the volume decrease from 1st time?
YES
NO
206b8. We were unable to adjust your system properly for EarPrint creation. *Log result and entry point
206b9 Please re-read the instructions.
206b.
205.
225.
211.
203.
228.
206b9

FIG. 28A

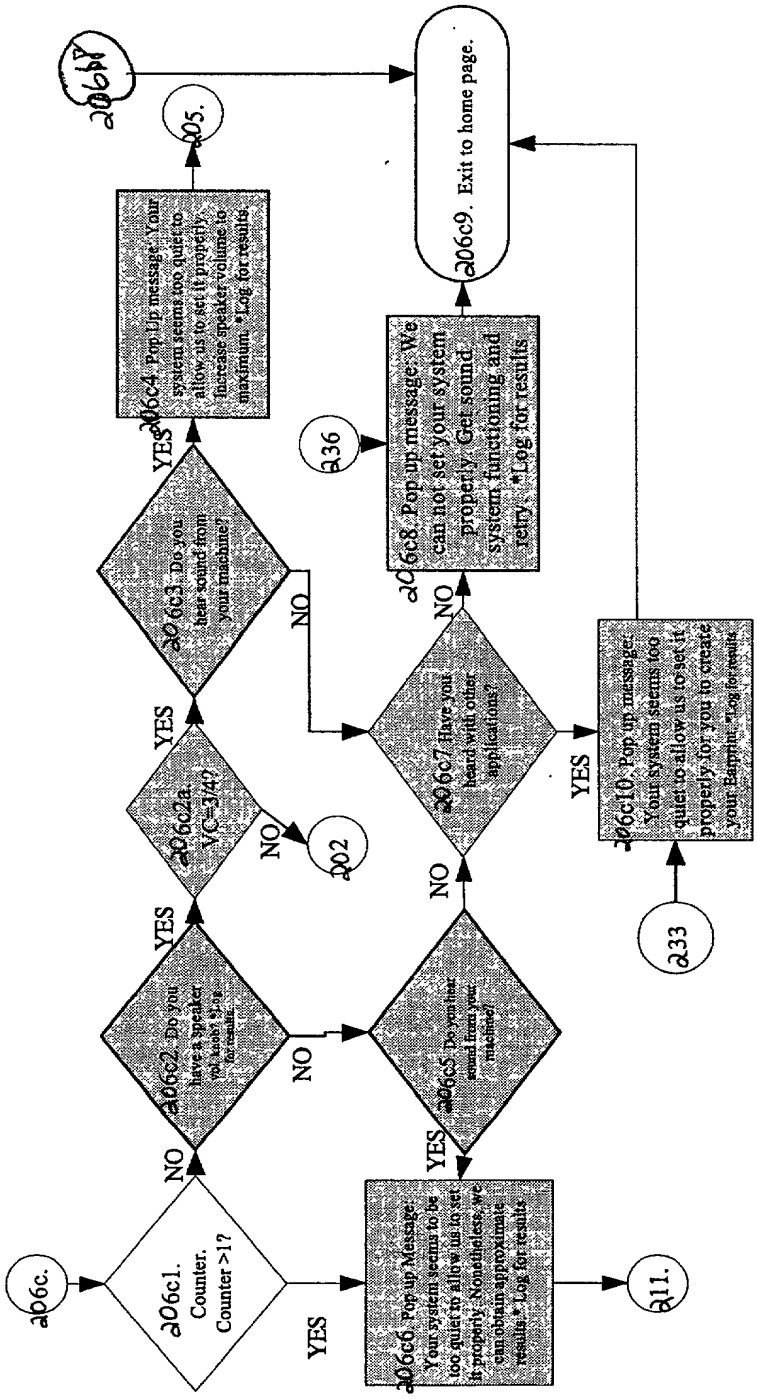

206c.
206c1. Counter. Counter >1?
NO
YES
206c2. Do you have a speaker, ph.knob, S/w to enable
NO
YES
206c2a. VC=340
NO
YES
206c3. Do you hear sound from your machine?
NO
YES
206c4. Pop Up message: Your system seems too quiet to allow us to set it properly. increase speaker volume to maximum. *Log for results
206c5. Do you hear sound from your machine?
NO
YES
206c6. Pop up Message: Your system seems to be too quiet to allow us to set it properly. Nonetheless, we can obtain approximate results.* Log for results
206c7. Have you heard with other applications?
NO
YES
206c8. Pop up message: We can not set your system properly. Get sound system functioning and retry. *Log for results
206c9. Exit to home page.
206c10. Pop up message: Your system seems too quiet to allow us to set it properly for you to create your Rampit. *Log for results
206f
205.
236
202
211.
233

FIG 2B